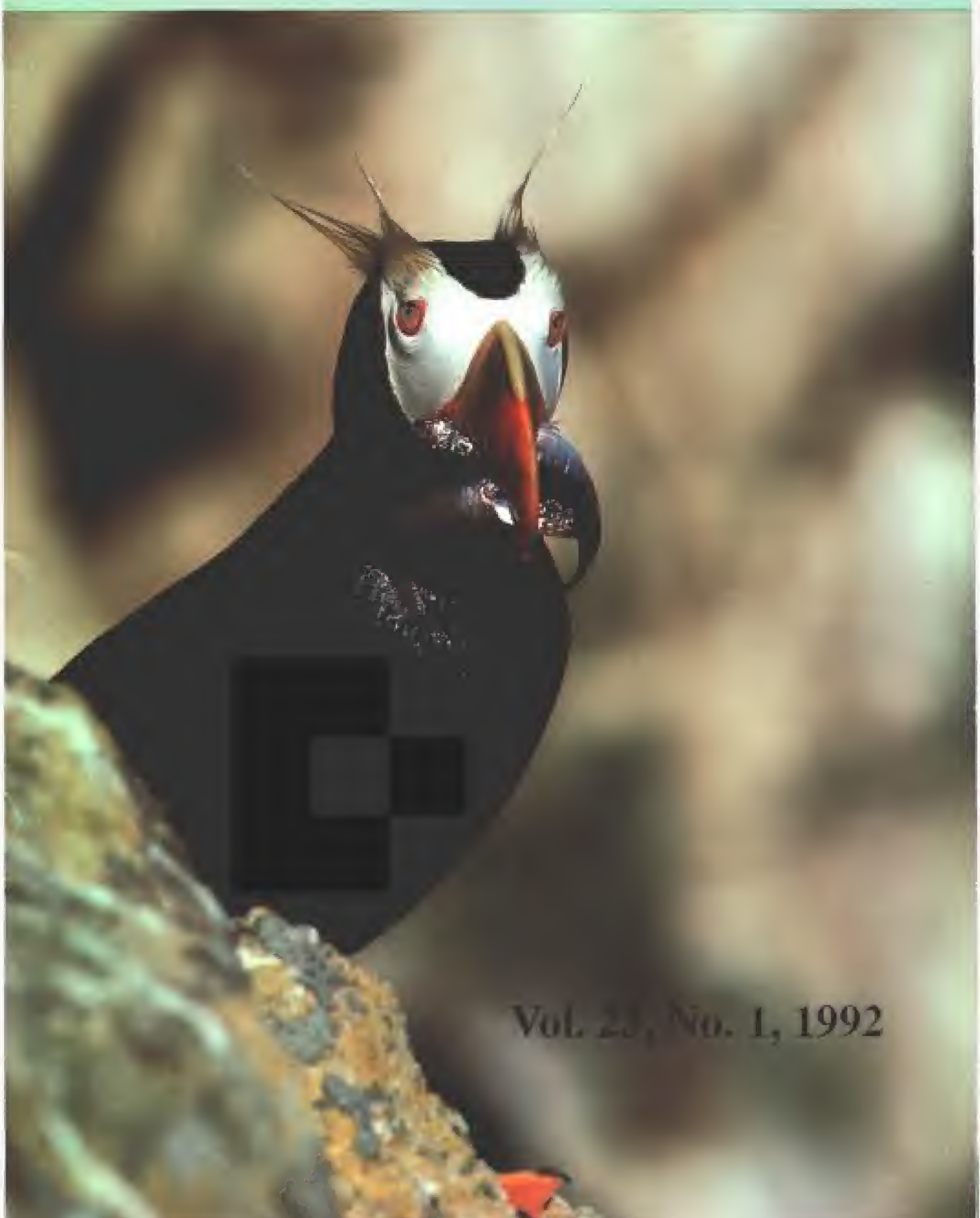
WESTERN BIRDS



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WESTERN BIRDS

Volume 23, Number 1, 1992

A MAXIMUM ESTIMATE OF THE CALIFORNIA GNATCATCHER'S POPULATION SIZE IN THE UNITED STATES

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The California Gnatcatcher, *Polioptila californica*, was recently recognized as a species distinct from the widespread Black-tailed Gnatcatcher, *P. melanura*, of the southwestern desert regions of the United States and Mexico (Atwood 1988, American Ornithologists' Union 1989). Although California Gnatcatchers are distributed throughout much of Baja California, the northernmost subspecies, *P. c. californica*, now occurs only in remnant fragments of coastal sage scrub habitat from Los Angeles County, California, south to El Rosario, Baja California (Atwood 1991).

Atwood (1980) speculated that the number of California Gnatcatchers remaining in the United States was "no more than 1,000 to 1,500 pairs," from estimates of 30 pairs in Ventura County, 130 pairs in Los Angeles County, 50 pairs in San Bernardino County, 325 pairs in Orange County, 400 pairs in Riverside County, and 400 pairs in San Diego County. These values were derived from reports of various observers, limited field work in different portions of the species' range, and visual estimates of habitat availability in different areas. Despite the preliminary nature of these results, the pattern of continuing habitat loss evident at that time indicated "immediate concern for the survival" of *P. c. californica* in the United States (Atwood 1980).

Extensive destruction of suitable California Gnatcatcher habitat has continued since 1980 (Rea and Weaver 1990). Of 56 southern California sites where Atwood (1980) recorded coastal sage scrub vegetation and California Gnatcatchers, 18 (32%) had been completely destroyed by urban development by 1990, and 15 (27%) had been partially degraded by current construction projects (J. Atwood and K. Shields, unpubl. data). Similar habitat loss, primarily associated with agricultural development, has also increased in northwestern Baja California; Best (1983) found that the San Quintin Kangaroo Rat (*Dipodomys gravipes*), which historically occurred along Baja California's Pacific coast from San Telmo south to El

Rosario, "has been virtually eliminated from most of its native range during the past decade [owing] to extensive cultivation." Because of continuing habitat loss throughout the gnatcatcher's United States and Mexican range, federal and California endangered species status was recently proposed for the California Gnatcatcher's northern subspecies. As an effort to provide a baseline for future studies, in this paper I estimate the maximum population of *P. c. californica* that might currently exist in the United States.

METHODS

Determining numbers of a small passerine whose population density varies throughout a relatively extensive geographic range is difficult. Because California Gnatcatchers are confined to coastal sage scrub vegetation (Atwood 1980), population estimates could, in theory, be derived from measurements of the available acreage of this habitat coupled with the species' average territory size. However, many areas of vegetation that are correctly classified as coastal sage scrub are not occupied by gnatcatchers, suggesting that population estimates based on vegetation mapping will invariably be inflated. Direct censusing of gnatcatchers throughout southern California has also proven impossible, because public access to many large tracts of private land has been denied. Although some census data have been collected by the southern California development industry, little of this information has been released to the public, and independent verification of these results has been prevented.

In this analysis, I use a more general approach to estimate crudely the maximum number of California Gnatcatchers remaining in the United States. Atwood and Bolsinger (in press) showed that in Los Angeles, Orange, and San Diego counties, 93% of recent California Gnatcatcher observations were made at elevations under 250 m; in Riverside County, most recent records (75%) were made at elevations under 500 m. Here I use these elevations to approximate the maximum range of California Gnatcatchers in each of these counties. Using the geographic information system CAMRIS (Computer Aided Mapping and Resource Inventory System; R. Glenn Ford, Ecological Consulting, Inc., Portland, Oregon) and elevation contours digitized from U.S. Geological Survey (USGS) 1:100,000 scale topographic maps, I calculated the extent of land lying below 250 m elevation in Los Angeles, Orange, and western San Diego counties, and below 500 m in western Riverside County. Next, again using these topographic maps, I examined all 1-minute blocks of latitude–longitude below these elevations, and entered into CAMRIS those blocks that were predominately designated as "Built Up" or as "Orchard, Vineyard." Finally, I calculated the remaining amount of undeveloped lowland that might support California Gnatcatchers in each county. Although *P. c. californica* historically occurred in Ventura and San Bernardino counties, Atwood (1980) found that the species has been largely or entirely extirpated from these areas; consequently, these counties were excluded from analysis. Similarly, I excluded from area calculations those lowland portions of Los Angeles County located near the Santa Monica Mountains, where California Gnatcatchers have never been reliably reported (Atwood 1980).

USGS maps (1:100,000 scale) used in this analysis included (followed by publication date and, in brackets, dates of aerial photography used in the most recent revisions): Borrego Valley, 1982 [1976–77]; El Cajon, 1979 [1975]; Long Beach, 1981 [1979]; Los Angeles, 1979 [1976]; Oceanside, 1982 [1972–74, 1979]; Palm Springs, 1984 [1975, 1979]; San Bernardino, 1982 [1975, 1978]; San Diego, 1979 [1972, 1975–77]; Santa Ana, 1983 [1978–79]; Santa Barbara, 1982 [1977–78].

Focused surveys conducted during 1990 by the U.S. Fish and Wildlife Service (L. Salata, unpubl. data) and U.S. Navy (T. Burr, unpubl. data) located approximately 175–200 pairs of California Gnatcatchers on Camp Pendleton Marine Corps Base, San Diego County, and 25–50 pairs on the adjacent Fallbrook Naval Weapons Station. On the basis of topographic map designations of "Built Up" and "Orchard" areas, approximately 405 km^2 of undeveloped land lie below 250 m elevation on these two military bases. These acreage measurements and population estimates suggest that California Gnatcatchers occur in undeveloped lowlands of coastal southern California at densities ranging from 0.49 to 0.62 pairs per square kilometer. Note that these values do not refer to population densities within particular areas of coastal sage scrub that are occupied by gnatcatchers, or to densities within pure stands of occupied and unoccupied coastal sage scrub. Rather, the "habitat" definition used here is simply "low-elevation, undeveloped" land. I used these densities in conjunction with the measurements of undeveloped acreage in each county to estimate the population size of California Gnatcatchers remaining in the United States during the late 1970s. Assumptions inherent in this analysis suggest that current (1991) population levels cannot significantly exceed these values.

Unpublished documents cited in the text have been deposited in the Josselyn Van Tyne Memorial Library of the Wilson Ornithological Society, University of Michigan, Museum of Zoology, Ann Arbor, Michigan 48109.

RESULTS AND DISCUSSION

Figure 1 shows the distribution of undeveloped lowland within the United States range of the California Gnatcatcher during the mid- to late 1970s, when the USGS maps on which my analysis is based were compiled. Multiplying the acreage of this area by the densities derived from surveys on Camp Pendleton and Fallbrook yields population estimates of 1811 to 2291 pairs (Table 1). These results are similar to Atwood's (1980) population estimate (1000–1500 pairs), which was based on different types of information that were obtained shortly after the time period considered here.

This analysis assumes that no California Gnatcatchers occur above the elevational limits used to define the species' potential distribution. In fact, small numbers of *P. c. californica* do occur above 250 m elevation in Orange and San Diego counties, and above 500 m elevation in Riverside County (Atwood and Bolsinger, in press). Use of elevation as an index of gnatcatcher distribution thus tends to underestimate the total number of birds remaining in the United States. However, this inaccuracy is more than offset by four other assumptions that inflate estimates of the population

size, and suggest that fewer than approximately 2000 pairs currently remain north of Mexico.

First, the amount of land currently developed in southern California is certainly greater than indicated on maps prepared during the mid- to late 1970s. For example, the Riverside County Planning Department (1990) noted that "from 1980 through January 1, 1985, the county's population grew from 663,166 to 800,949 people, an increase of 137,783 or 20.8%. From January 1, 1985, to January 1, 1990, the population grew . . . to 1,110,021 people, an increase of . . . 38.6%." Comparisons of 1980 and

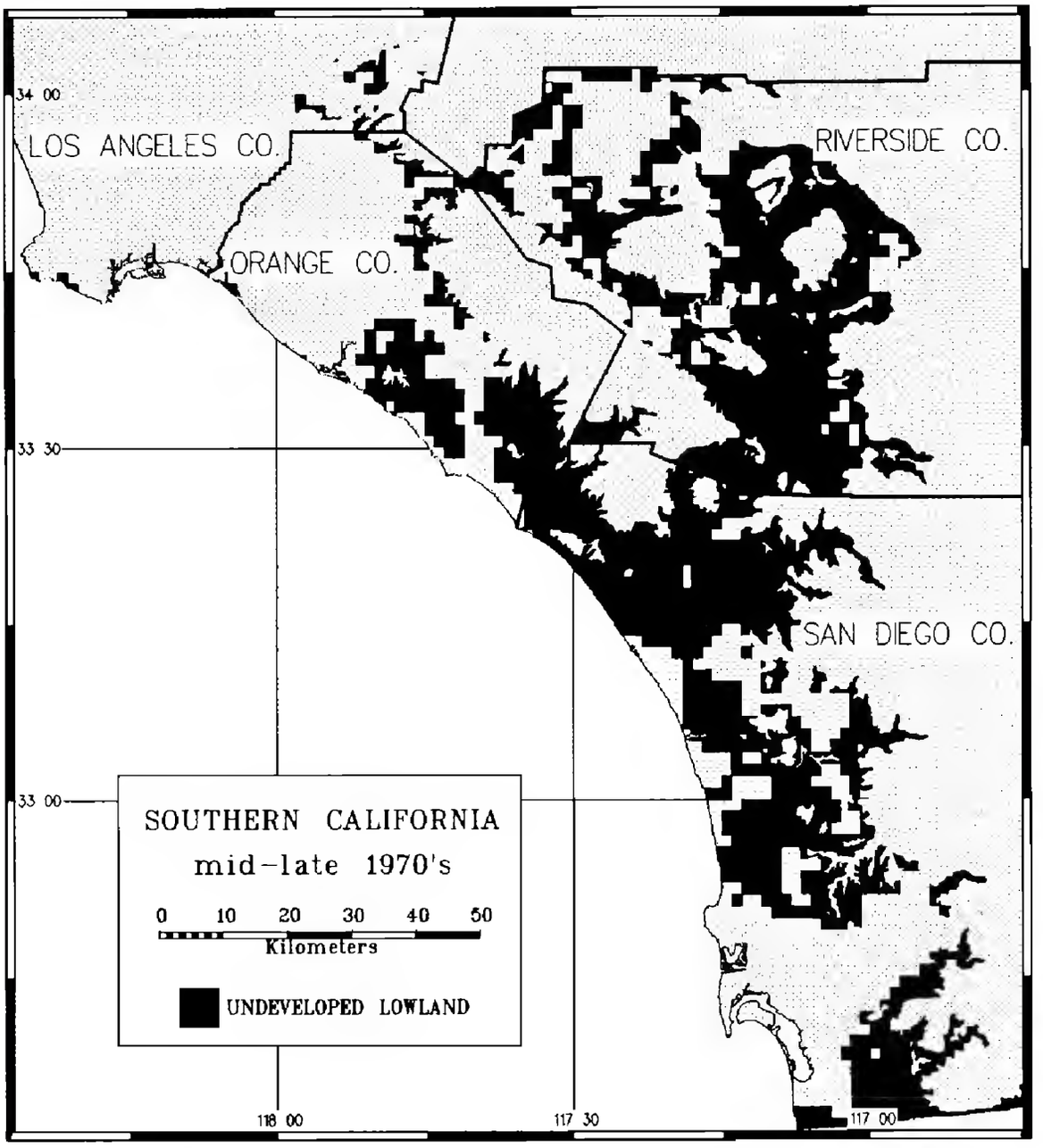

Figure 1. Extent of undeveloped lowland in coastal southern California during the mid- to late 1970s. Based on (a) designations of "Built Up" and "Orchard, Vineyard" areas shown on USGS 1:100,000 scale topographic maps and (b) the 250-m (Los Angeles, Orange, San Diego counties) or 500-m (Riverside County) elevation contours.

1990 U.S. Census Bureau data indicate that four of the ten fastest growing major cities in the United States (Escondido, Oceanside, Rancho Cucamonga, and Chula Vista) are located in southern California; more than 90,000 people moved to the city of Moreno Valley between 1980 and 1990, representing an increase of 322%. All of these cities are located in areas from which there are historic or recent records of California Gnatcatchers (Atwood 1980, 1990); however, none of this human population growth, or its associated destruction of natural habitats, is reflected in the calculations of undeveloped acreage that were used here as the basis for gnatcatcher population estimates. Also, the USGS topographic maps on which this analysis was based failed to identify agricultural lands other than orchards or vineyards; thus, many areas identified here as "undeveloped" may, in fact, have been planted in a variety of flower or vegetable crops.

Second, gnatcatcher surveys based on unbanded individuals, such as the censuses conducted on Camp Pendleton and Fallbrook, frequently overestimate the number of birds actually present (e.g., Lettieri–McIntyre and Associates 1987, ERC Environmental and Energy Services Co. 1990). In general, this tendency may reflect the surprisingly extensive movements that some pairs of gnatcatchers undertake; the average home range size of color-banded birds in San Diego County has been reported as greater than 18 acres, and the breeding season home range of one pair was documented at 45 acres (ERC Environmental and Energy Services Co. 1990, Mock et al. 1990, P. Mock pers. comm.). Consequently, the densities implied by the Camp Pendleton and Fallbrook surveys may be too high, thereby inflating the final population estimate.

Table 1 Maximum Population Estimates of California Gnatcatchers in the United States

County	Undeveloped Lowland (km^2)[a]	Population Estimates[b]	
		0.49 pairs/km^2	0.62 pairs/km^2
Los Angeles	48	24	30
Orange	458	224	284
Riverside	1478	724	916
San Diego	1712	839	1061
Total	3696	1811	2291

[a]Based on delineations of "Built Up" and "Orchard, Vineyard" areas as shown on 1:100,000 scale USGS topographic maps prepared in the mid- to late 1970s. In Los Angeles, Orange, and San Diego counties, the 250-m elevation contour was used to define the maximum extent of suitable California Gnatcatcher habitat; in Riverside County, the 500-m elevation contour was used (Atwood and Bolsinger in press).

[b]Densities based on surveys of Camp Pendleton Marine Corps Base (L. Salata, U.S. Fish and Wildlife Service, unpubl. data) and Fallbrook Naval Weapons Station (T. Burr, U.S. Navy, unpubl. data).

Third, of 405 km^2 of undeveloped land located below 250 m elevation on Camp Pendleton and Fallbrook military bases, general vegetation maps prepared by Oberbauer (1977) showed that 346 km^2 (85%) were covered by "coastal sage scrub" or "grassland" vegetation types (Figure 2); Atwood (1980) found that Oberbauer's definitions of both of these habitats frequently included areas occupied by California Gnatcatchers. In contrast, of

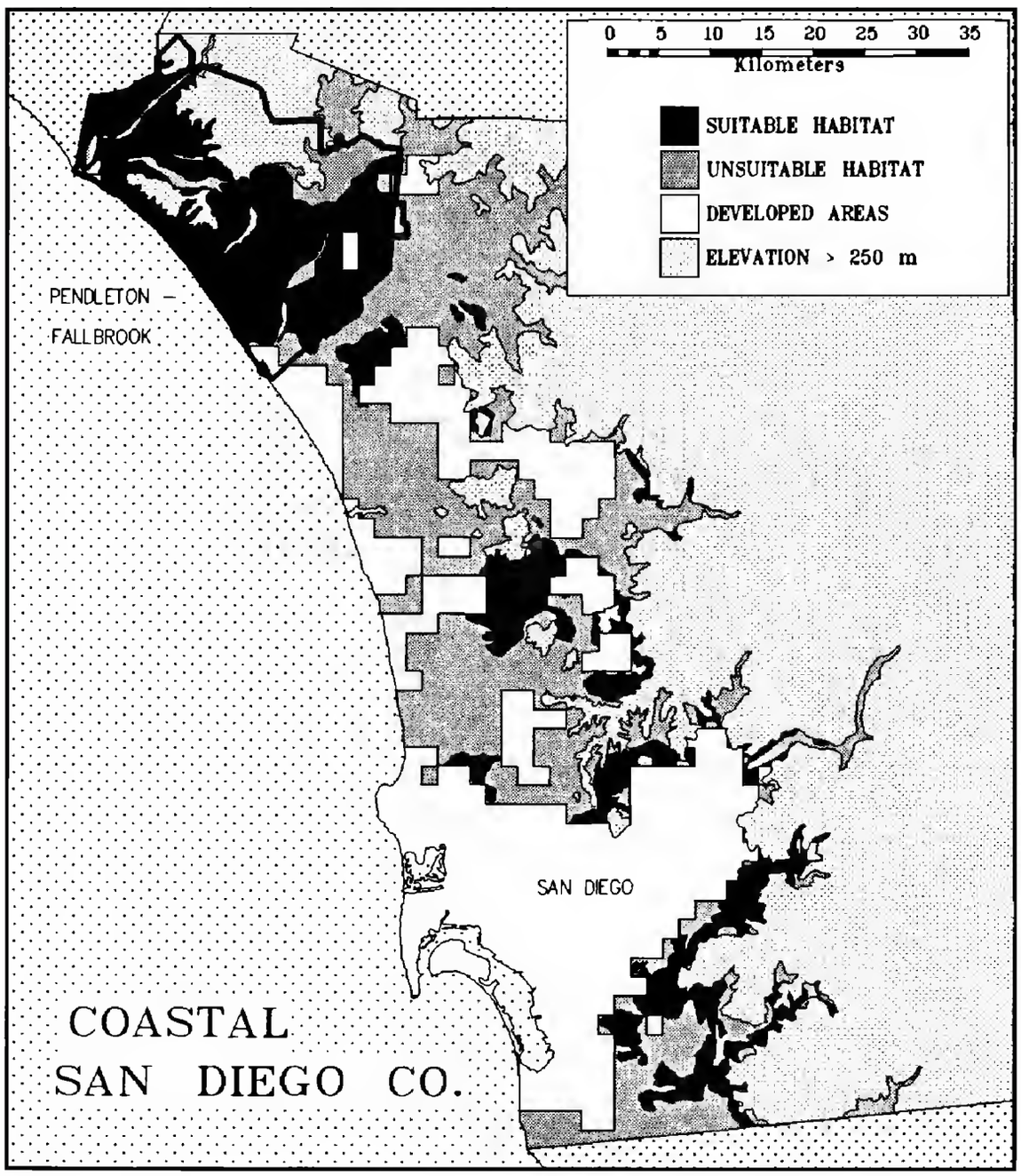

Figure 2. Relative abundance of coastal sage scrub and grassland vegetation in lowland (<250 m elevation), undeveloped portions of Camp Pendleton Marine Corps Base/Fallbrook Naval Weapons Station and the remainder of western San Diego County. Boundaries of Camp Pendleton Marine Corps Base and Fallbrook Naval Weapons Station shown in northwest corner of county. Based on (a) vegetation mapping by Oberbauer (1977) and (b) designations of "Built Up" and "Orchard, Vineyard" areas shown on USGS 1:100,000 scale topographic maps.

1307 km^2 of undeveloped land in lowland portions of western San Diego County away from these military bases, only 304 km^2 (23%) supported habitats identified by Oberbauer (1977) as coastal sage scrub or grassland (Figure 2). These results indicate that, in general, the undeveloped lowlands of Camp Pendleton and Fallbrook probably include more extensive gnatcatcher habitat than does most of the rest of undeveloped coastal San Diego County . Therefore, population densities derived from gnatcatcher surveys on Camp Pendleton and Fallbrook probably exceed, on average, the densities characteristic of other lowland, undeveloped regions of coastal southern California. Application of the Camp Pendleton/Fallbrook densities to less suitable portions of the species' range would predictably overestimate the true population size of California Gnatcatchers.

Fourth, this analysis assumes that the density of California Gnatcatchers in inland portions of the species' range is similar to that of coastal areas such as Camp Pendleton and Fallbrook. In fact, densities of *P. c. californica* are generally lower farther inland (Mock et al. 1990; Atwood, unpubl. data). Application of density values derived from coastal sites thus inflates estimates of the true number of California Gnatcatchers remaining in Riverside County and inland San Diego County.

Although population estimates provide a useful starting point for further investigation and continued monitoring, the exact number of remaining California Gnatcatchers is, in many ways, a secondary issue with regard to the species' status in the United States. Given that (1) approximately 90% of southern California's historic distribution of coastal sage scrub has already been destroyed by urbanization (Hanes 1976, Kirkpatrick and Hutchinson 1977, Mooney 1977, Westman 1981, 1987, O'Leary 1990), (2) most remaining United States populations of California Gnatcatchers are located on private lands where urban development is imminent (Atwood 1990), and (3) increasing habitat fragmentation may inhibit the gnatcatcher's dispersal and reduce its reproductive success (e.g., Soulé et al. 1988, Bolger et al. 1991), the long-term survival of *P. c. californica* in the United States would be questionable even if there were currently many thousands of breeding pairs remaining north of Mexico. Without reversal of present land use trends, California Gnatcatchers will be extirpated from most or all of their range in the United States in the near future.

SUMMARY

Analysis by means of a geographic information system of the extent of undeveloped lowland in coastal southern California, coupled with density indices derived from recent surveys of Camp Pendleton Marine Corps Base and Fallbrook Naval Weapons Station, indicates that 1811–2291 pairs of California Gnatcatchers remained in the United States in the late 1970s. Various assumptions inherent in this analysis imply that these values are inflated and that the species' current population size north of Mexico cannot significantly exceed 2000 pairs. Continuing loss and fragmentation of the California Gnatcatcher's required coastal sage scrub habitat, of which most remaining tracts occur on private properties threatened by urban

development, will eliminate the species from much or all of its United States range in the immediate future.

ADDENDUM

On 1 August 1991, public testimony was received by the California State Fish and Game Commission regarding the petition to add the California Gnatcatcher to the state's list of endangered species. During this hearing, lobbyists for the southern California development industry presented the results of preliminary gnatcatcher population surveys conducted within the last few years (H. L. Jones, 1991, A rangewide assessment of the California Gnatcatcher (*Polioptila californica*), unpublished report prepared for the Building Industry Association of Southern California, Santa Ana). No details were given concerning methods used in surveys, specific areas censused, or the rationale used in extrapolating estimated totals from actual observations. Because only observers employed by the development industry have been allowed access to many important tracts of private land, these results have not been independently verified. Nonetheless, to provide all currently available information regarding the population size of California Gnatcatchers in the United States, I repeat Jones' estimates here: *Los Angeles County*, 11–20 pairs actual census results, 20–30 pairs estimated total; *Orange County*, 245 pairs actual census results, 325–350 pairs estimated total; *San Diego County*, 830 pairs actual census results, 1000–1100 pairs estimated total; *Riverside County*, census data unavailable, 300–400 pairs estimated total. Jones concludes that "we have conservatively estimated approximately 1645 to 1880 pairs of [California] gnatcatchers within the United States." This value is approximately 10–20% lower than the maximum population estimates (1811–2291 pairs) derived above.

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Accepted 25 July 1991

California Gnatcatcher *Sketch by Lou Barnicle*

NOTES ON THE BIRDS OF SAN IGNACIO LAGOON, BAJA CALIFORNIA SUR, MEXICO

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Little information is available on the avifauna of San Ignacio Lagoon. The only published accounts dealing specifically with this area are those of Huey (1927), who visited the lagoon over 60 years ago, and Bancroft (1927), who mentioned this area as breeding ground for the Osprey (*Pandion haliaetus*) and some species of waterbirds. As far as we know, the only other ornithological research there is that of Reitherman and Storrer (1981), who studied the Osprey population of Ballena Island from 1980 to 1983.

During 1988 and 1989, Danemann (1991) spent 117 days at San Ignacio Lagoon, studying primarily the community ecology of birds breeding on Ballena Island. Here we summarize observations recorded during those visits.

STUDY AREA

San Ignacio Lagoon is located on the western coast of the Baja California peninsula, between latitudes 26°38' and 27°00' N and longitudes 113°06' and 113°18' W (Figure 1). It covers 175 km^2 (Contreras 1985) with depths from 2 to 4 m in most areas and up to 18 m in its main channels. The shoreline of the lagoon consists of sand beaches, mud flats, mangroves, salt marshes, and a few rocky areas. Low tides expose large shoals extending well into the lagoon. The main body of water is the northern arm of the lagoon, whereas a second inlet, running east, includes most of the mangroves.

Ballena Island (also called Whale, Pelícanos, Garza, or Zopilotes Island) lies in the northern section of the lagoon (Figure 1). It covers 1.3 km^2 and, at its closest point, is 1700 m from the nearest land. The island is divided in two sections separated by a tidal channel. The south section (SBI) is basically flat, while the north section (NBI) includes cliffs as high as 10 m. The vegetation of the island includes several desert plants such as cholla (*Opuntia cholla*), garambullo (*Lophocereus schottii*), pitahaya agria (*Machaeracereus gummosus*), chamiz (*Atriplex* spp.), cardón (*Pachycereus pringlei*), frutilla (*Lycium* spp.), and palo adán (*Fouquieira diguetti*), and some coastal plants such as *Allenrolfea occidentalis*. Sand beaches and mud flats constitute most of the shoreline of this island.

In general, the climate is warm, windy, and very dry, with rains falling mainly in summer. Annual average temperatures are between 18° and 22°C, with daily fluctuations from 7° to 14°C (Contreras 1985).

San Ignacio Lagoon is 70 km from San Ignacio, the closest town. Several fishing camps are located along its shores, and a small-scale fishery has

been developed. Other commercial activities in the lagoon include the seasonal clam fishery, from late spring to fall, and tourism, especially whale-watching, during the winter.

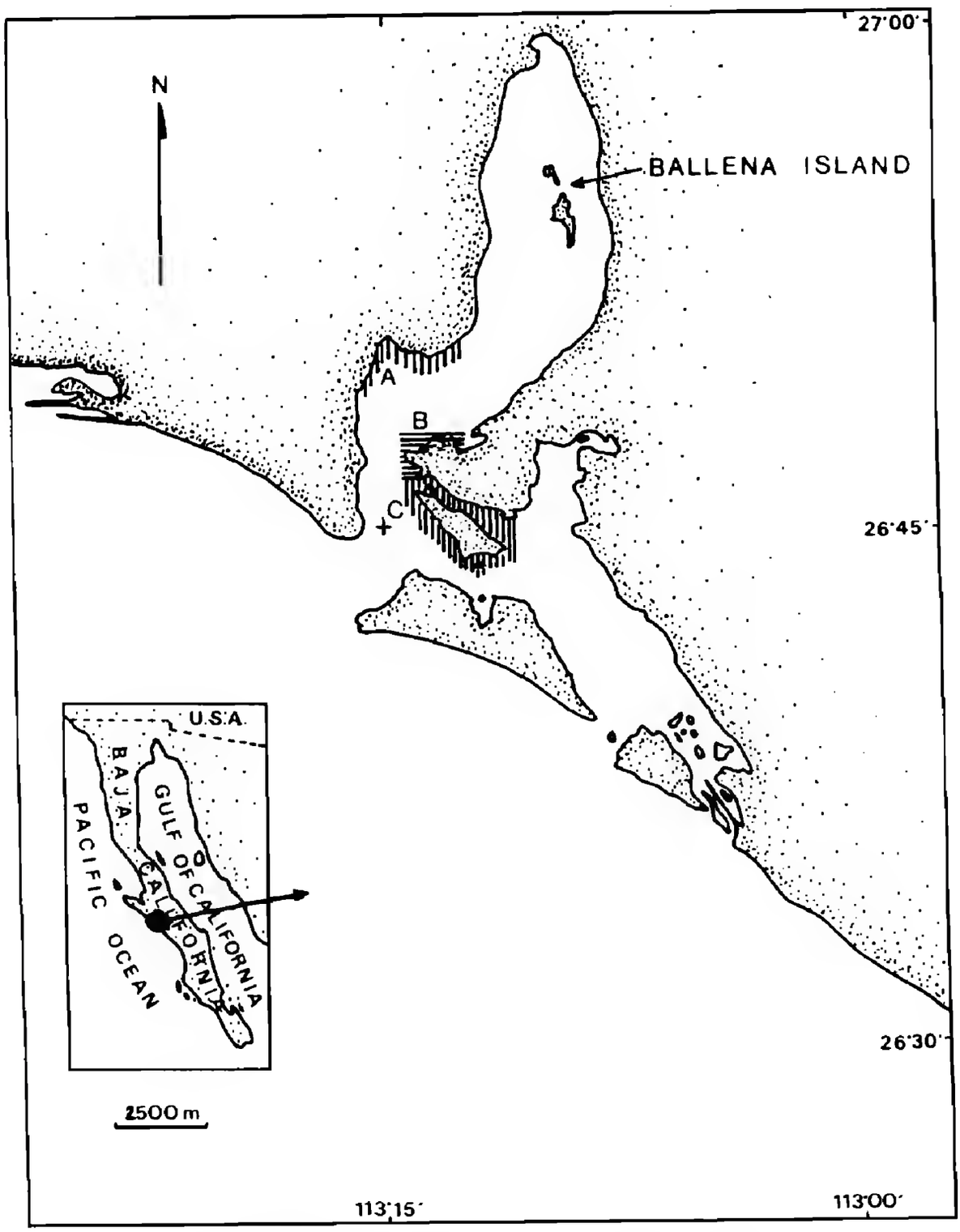

Figure 1. San Ignacio Lagoon, showing locations of Ballena Island and surveyed zones. A, shoreline and mangrove patches and channels on the western side of the lagoon; B, sandy beach and intertidal flats around Punta Piedra; C, mangrove patches and channels in the southeastern arm of the lagoon.

METHODS

The study carried out by Danemann at Ballena Island began with visits on 4–5 July, 29 November–1 December, and 22 December 1988, then continued from 11 January to 17 September 1989. The colonies were visited and censuses of the breeding birds were conducted weekly, and the number and condition of eggs and/or nestlings were recorded when possible. Species that might have been disturbed by our presence (Anderson and Keith 1980, Anderson 1988) were censused with 10× binoculars from a minimum distance of 100 m. Other species allowed a closer approach to the nests. Observations of nonbreeding species were also recorded.

On 21 and 22 April 1989, we surveyed the southern shoreline and south half of the lagoon from a 22-foot outboard motor boat. Surveyed areas are shaded in Figure 1. These surveys took place during high tides, from 0800 to 1600. Our data, therefore, offer a complete picture of birds breeding on Ballena Island but an incomplete view of nonbreeding species and of birds nesting around other parts of the lagoon.

SPECIES ACCOUNTS

We recorded 52 species during our visits to Ballena Island and San Ignacio Lagoon. Here we discuss all species noted at Ballena Island, as well as the species recorded only on the lagoon survey of 21 and 22 April 1989.

Fregata magnificens. Magnificent Frigatebirds were seen occasionally at Ballena Island but do not nest in the area. They probably come from the closest breeding colony, located at Santa Margarita Island, in Magdalena Bay.

Pelecanus erythrorhynchos. Local fishermen reported that White Pelicans are common winter residents of the mangroves and marshes of the southeastern inlet of the lagoon. We observed this species on only one occasion, when two individuals were swimming close to NBI, on 7 April 1989.

Pelecanus occidentalis. Ballena Island has become an important breeding site for Brown Pelicans. In 1984, around 50 pairs nested close to the southernmost point of SBI (Reitherman pers. comm.). On 4 July 1988, we observed around 100 chicks in the southwestern corner of the high central area of NBI. At this time many young had already fledged and were still around the colony. All nests were already abandoned, and at that point it was not possible to estimate the breeding population for that year. In 1989, from early February to early August, about 1100 pairs nested in the high central portion of NBI (Figure 2), and the colony extended over most of the frutilla bushes.

Phalacrocorax auritus. On 5 July 1988, around 100 pairs of Double-crested Cormorants were nesting close to the southern tip of SBI. Another 60 pairs were nesting on NBI, within the Brown Pelican colony. In 1989, 500 pairs nested together with Brown Pelicans on NBI (Figure 2). Beginning later than the breeding season of the pelicans, the breeding season of the cormorants extended from early March to late August. Their nesting substrate was mostly the same as that used by the pelicans, although cormorants also utilized narrower branches of frutilla and *Bursera* bushes. In some cases, they even built their nests over those of the pelicans, once the chicks of the latter had fledged.

Phalacrocorax penicillatus. Brandt's Cormorants were seen occasionally at Ballena Island but do not nest there.

Nycticorax violaceus. During the study only one pair of Yellow-crowned Night Herons was observed on Ballena Island, nesting on a cholla on NBI, in July 1989.

Butorides striatus. The Green-backed Heron was noted only once, in a mangrove channel in the southeastern arm of the lagoon, on 21 April 1989.

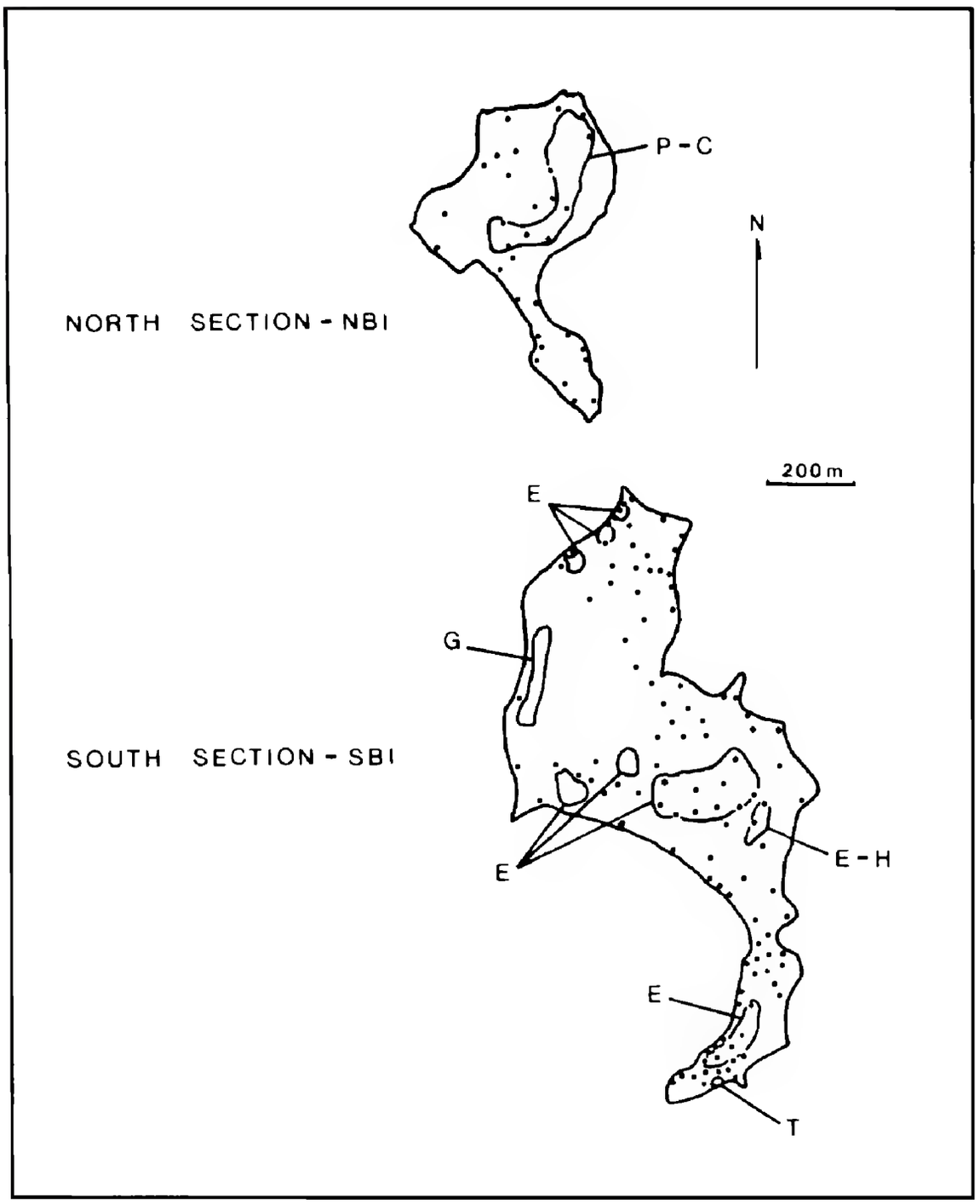

Figure 2. Ballena Island, showing distribution of active nests of Osprey (dots) and nesting areas of Brown Pelican (P), Double-crested Cormorant (C), Reddish Egret (E), Great Blue Heron (H), Western Gull (G), and Caspian Tern (T). From Danemann (1991).

Egretta tricolor. A single Tricolored Heron was noted at Ballena Island, a well-dried carcass found on 15 January 1989. The species was also recorded in the mangrove channels on the western side of the lagoon, on 21 April 1991.

Egretta rufescens. On 5 July 1988, we found 26 active nests of Reddish Egret on Ballena Island. Both eggs and grown chicks were present. From early March to late July 1989, 95 pairs nested on the island. They were present in almost all cholla and frutilla patches of SBI (Figure 2), and smaller numbers were mixed among the Brown Pelicans, Double-crested Cormorants, and Ospreys in the high central area of NBI.

Egretta thula. The Snowy Egret was seen at Ballena Island only once, on 8 February 1989. A flock of 14 was noted in the southwestern arm of the lagoon, on 21 April 1989.

Casmerodius albus. The Great Egret was observed in the mangrove patches along the southeastern arm (one individual) and western side (six individuals) of the lagoon, on 21 April 1989.

Ardea herodias. On 5 July 1988, we recorded two active nests of the Great Blue Heron on Ballena Island, sharing frutilla bushes with Reddish Egrets. Both nests had grown chicks. In 1989, one pair nested on NBI and seven nested on SBI (Figure 2), from late April to late July.

Eudocimus albus. The White Ibis was noted only once, a single individual observed in a mangrove channel in the southeastern arm of the lagoon, on 21 April 1989.

Branta bernicla. Large numbers of Brants winter in the area. They dispersed over the lagoon to feed during the day, and at night roosted regularly in dense flocks along the shore of SBI and along the east side of the lagoon. In the summer of 1989 just a few groups of up to 20 to 30 individuals remained around Ballena Island. In April, Brants were also observed in the southeastern mangrove channels of the lagoon.

Mergus serrator. Two Red-breasted Mergansers were recorded in a mangrove patch on the western side of the lagoon, on 21 April 1989.

Haematopus bachmani. The Black Oystercatcher was recorded only once, in a mangrove channel in the southeastern arm of the lagoon, on 21 April 1989. It was in a flock of 17 American Oystercatchers.

Haematopus palliatus. The American Oystercatcher is a common breeder and resident at Ballena Island. We found seven active nests of this species on the shell-covered shores of SBI, and saw the birds on every shore of the island throughout the year. They were also observed in the southeastern mangrove channels of the lagoon.

Charadrius alexandrinus. Only a few Snowy Plovers remained on Ballena Island during the winter. Storrer (pers. comm.) reported this species as a breeder in this location, but we failed to find any evidence of nesting.

Other Charadriidae. The Wilson's Plover (*Charadrius wilsonia*) and the Black-bellied Plover (*Pluvialis squatarola*) were seasonal visitors to Ballena Island, observed during fall and winter. Both species were recorded in the southeastern arm of the lagoon (flocks of 10 and 55 individuals, respectively) on 21 April 1989.

Scolopacidae. The Marbled Godwit (*Limosa fedoa*) is common year round at San Ignacio Lagoon and Ballena Island. Flocks of up to 700 individuals were observed in the east side of the lagoon, and much smaller numbers occurred in the shoals around Ballena Island. The Whimbrel (*Numenius phaeopus*), Long-billed Curlew (*N. americanus*), and Willet (*Catoptrophorus semipalmatus*) were also regular in small

numbers at Ballena Island, sometimes occurring within a large flock of the Marbled Godwit. The Greater and Lesser Yellowlegs (*Tringa melanoleuca* and *T. flavipes*, 11 and 1 individuals, respectively) were noted in the mangrove channels of the western side of the lagoon on 21 April 1989. Dowitchers (*Limnodromus* sp.), Ruddy and Black turnstones (*Arenaria interpres* and *A. melanocephala*), Dunlins (*Calidris alpina*), Western and Least sandpipers (*C. mauri* and *C. minutilla*) were seasonal visitors to Ballena Island, observed during fall and winter. A flock of 850 Dunlins was noted in a channel of the southeastern arm of the lagoon on 21 April 1989.

Larus occidentalis. At SBI on 4 July 1988 we recorded seven active nests of the Western Gull, with eggs, as well as 12 downy chicks away from the nests. In 1989, 40 pairs nested on a sand flat close to the southwest coast of SBI (Figure 2). The breeding season of this species extended from mid-April to late July.

Other gulls. The Heermann's (*Larus heermanni*), Ring-billed (*L. delawarensis*), Herring (*L. argentatus*), and California (*L. californicus*) gulls were occasional visitors to Ballena Island.

Sterna elegans. The Elegant Tern was noted at Ballena Island once, on 6 May 1989. Five individuals of this species were recorded in the sandy beach around Punta Piedra on 21 April 1989.

Sterna maxima. The Royal Tern occurred occasionally at Ballena Island, but did not nest there. Seventeen were on the sandy beach around Punta Piedra on 21 April 1989.

Sterna caspia. On 4 July 1988 we found 42 nests of the Caspian Tern with eggs. Seven chicks, probably from an earlier egg-laying peak, had already left the nesting area and joined the adults in shallow water. In 1989, 93 pairs established their colony very close to the site of the previous year, in a flat dusty area close to the southern tip of SBI (Figure 2). Their breeding season, extending from early May to late July, encompassed two peaks of egg laying. To our knowledge, this is one of only two Caspian Tern breeding colonies in Baja California, the other being in Ojo de Liebre (Scammon's) Lagoon (Bancroft 1927, Danemann pers. obs.).

Cathartes aura. The Turkey Vulture was an occasional visitor to Ballena Island. We observed this species in May 1989 feeding on carcasses of Brown Pelican chicks.

Pandion haliaetus. The most remarkable feature of the avifauna of Ballena Island is the high density of nesting Ospreys. First described by Reitherman and Storrer (1981), this ground-nesting population is the densest known for the species (Poole 1989). In the 1989 breeding season the island held 143 active nests (Figure 2), for a maximum density of 93.85 per square kilometer. The productivity was 1.02 fledglings per active nest. The Ospreys' breeding season extended from mid-December 1988 to late June 1989.

Falco peregrinus. Two pairs of the Peregrine Falcon nested on Ballena Island during 1989. One of the nests was successful, fledging two young.

Archilochus alexandri. The Black-chinned Hummingbird was noted at Ballena Island occasionally. Both male and female could be clearly observed, together and from a short distance, feeding on flowers of *Fouquieira diguetti*.

Melanerpes uropygialis. The Gila Woodpecker was noted on Ballena Island occasionally.

Eremophila alpestris. The Horned Lark was noted at Ballena Island only once, a flock of 20 individuals on 18 January 1989.

Corvus corax. The Common Raven occurred regularly on Ballena Island. This species and the Western Gull were the most important predators on eggs of the Brown Pelican and Double-crested Cormorant. We did not find any raven nests.

Lanius ludovicianus. The Loggerhead Shrike was a common resident on Ballena Island throughout 1989. We did not find any nests, although it bred there between 1981 and 1984 (Storrer pers. comm.).

Mimus polyglottos. The Northern Mockingbird was seen on Ballena Island only once, on 15 March 1989.

Anthus rubescens. We noted the Water Pipit on Ballena Island only once, on 16 January 1989.

Dendroica petechia castaneiceps. The Mangrove Warbler was fairly common in every mangrove patch of both shores of the lagoon. The behavior and song of the males suggest that this species breeds in the area, as observed by Huey (1927).

Passerculus sandwichensis. The Savannah Sparrow was a permanent resident of the *Allenrolfea occidentalis* bushes along the shoreline of Ballena Island. Although we did not find any nests, the birds' continuous song and behavior suggest that the species breeds at this location.

During their research in San Ignacio Lagoon, from 1980 to 1983, Reitherman and Storrer (pers. comm.) recorded eight species that we did not observe in 1988 or 1989. Those were the Least Bittern (*Ixobrychus exilis*), American Bittern (*Botaurus lentiginosus*), Black-crowned Night Heron (*Nycticorax nycticorax*), Little Blue Heron (*Egretta caerulea*), Clapper Rail (*Rallus longirostris*), Northern Harrier (*Circus cyaneus*), Great Horned Owl (*Bubo virginianus*), and Belted Kingfisher (*Ceryle alcyon*).

DISCUSSION

Our observations show that San Ignacio Lagoon is an important area for breeding water birds and Ospreys, and probably is important to migratory shorebirds, as suggested by its geographical position along the Pacific flyway. This latter hypothesis is supported by our records of numbers such as 400 Western Sandpipers in January and 850 Dunlins in April at Ballena Island alone. Still, regular censuses for shorebirds should be made to corroborate this.

The most dramatic change evident in the avifauna of San Ignacio Lagoon since 1927 is the increase in the populations breeding at Ballena Island. In his 1927 field notes, kept in the library of the San Diego Natural History Museum, Huey stated that the island "proved to be of little interest ornithologically." Huey (1927) did not report any Ospreys nesting at Ballena Island. At present, it is hard to step there without seeing the conspicuous nest structures all over. In contrast, Bancroft (1927) did report San Ignacio Lagoon as a breeding ground for Ospreys, but he did not indicate if they were nesting on Ballena Island. The notes on San Ignacio Lagoon published by Bancroft were probably based on observations made by Sechrist and Bussey, two young men commissioned to collect eggs and specimens for Bancroft's collection. Sechrist and Bussey accompanied Huey on his trip to

the lagoon but stayed there a week longer, while Huey visited La Escondida (Pond) Lagoon (Huey 1927 and field notes). Possibly, given the time they spent in the lagoon, Sechrist and Bussey inspected Ballena Island thoroughly, finding some Ospreys nesting. The increase in the breeding Osprey population of Ballena Island since 1927 coincides with the reduction of the ground-nesting populations of northern Baja California, as reported by Kenyon (1947).

Although the area is legally protected (Gobierno de los Estados Unidos Mexicanos 1988), enforcement is almost null. During the Ballena Island research we identified four main sources of disturbance: the foreign tourists that visit the lagoon, attracted mainly by whale watching, the professional and amateur photographers, fishermen, and the people involved in the seasonal scallop fishery. Visitors landing on the island provoke different degrees of disturbance, deeply affecting some of the breeding species such as the Brown Pelican and Double-crested Cormorant. Another potential threat to the breeding colonies is aircraft landings. In both sections of Ballena Island we found tracks of small planes.

The increase and present numbers of breeding populations, the unique characteristics of the Osprey colony, and the use of this area by large numbers of migratory birds demonstrate that San Ignacio Lagoon and particularly Ballena Island are of outstanding value to birds. In 1988, appreciation of the nesting birds prompted the Mexican government to designate Ballena Island as a nucleus zone of the "El Vizcaino" National Reserve of the Biosphere (Gobierno de los Estados Unidos Mexicanos 1988). Owing to its sensitivity and the disturbances to which it is exposed, San Ignacio Lagoon and its birds deserve increased protection.

ADDENDUM

While revising the manuscript of this paper, we visited San Ignacio Lagoon again, from 20 to 22 November 1990. On this visit we recorded four species new to our list: the Western Grebe (*Aechmophorus occidentalis*), one individual found drowned in a gill net in the central area of the lagoon, the Surf Scoter (*Melanitta perspicillata*) and the Bufflehead (*Bucephala albeola*), flocks of six and ten individuals, respectively, observed in the south portion of the lagoon, and the Forster's Tern (*Sterna forsteri*), a single individual observed on Ballena Island.

SUMMARY

During 1988 and 1989, 52 species of birds were recorded at San Ignacio Lagoon, Baja California Sur, México. Forty-four species were noted at Ballena Island, in the northern arm of the lagoon. Nine species breed on Ballena Island, including the densest known colony of Ospreys, a significant number of Reddish Egrets, and large and relatively recently established colonies of Brown Pelicans, Double-crested Cormorants, Great Blue Herons, Western Gulls, and Caspian Terns. In spite of increasing human disturbance, numbers and variety of birds nesting on Ballena Island are evidently greater than in 1927.

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Osprey in flight

Photo by © Daniel Lee Brown

GEOGRAPHIC VARIATION IN *HIRUNDO PYRRHONOTA* (CLIFF SWALLOW) FROM NORTHERN NORTH AMERICA

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The number of subspecies recognized in *Hirundo pyrrhonota* Vieillot (Cliff Swallow) from Alaska, Canada, and the northern contiguous United States ranges from one (Peters 1960) to three (e.g., Jewett et al. 1953, Oberholser 1974). Most sources (e.g., American Ornithologists' Union [A.O.U.] 1957, Behle 1976) recognize two subspecies: *hypopolia* Oberholser, 1920, breeding from central Alaska to the central Great Basin, and two disjunct populations of nominate *pyrrhonota*, breeding on the west coast and east of the Rocky Mountains. Although various authors have reported measurements of wing chord, they have not provided quantitative data for other plumage characters, and they disagree in the characterizations and ranges of the subspecies they recognize. Because of this, I reviewed the geographic variation among the northern populations.

My study is confined to specimens from Alaska, Canada, and the contiguous United States south to Merced County in California, both slopes of the Rocky Mountains from Montana to Colorado, and northern half of the eastern United States from Kansas east to Virginia (Figure 1). The A.O.U. (1957) gave the breeding range of *hypopolia* as extending from Alaska and Mackenzie to southeastern British Columbia, the eastern parts of Washington, Oregon, and central-eastern California, central Nevada, northern Utah, Montana, and northwestern Wyoming, and the range of nominate *pyrhonota* as from southwestern British Columbia, western Oregon and Washington to southern California, southern Nevada, southern and eastern Utah, and east of the Rocky Mountains. I excluded specimens of *H. p. ganieri* Phillips, 1986, a subspecies (Browning 1990) that breeds from at least west-central Tennessee to Texas, and *H. p. tachina* Oberholser, 1903 (sensu Phillips 1986), which breeds north to central California, Utah, Arizona, and New Mexico. I follow Phillips (1973) for the use of the generic name *Hirundo* for the Cliff Swallow, Hellmayr (1935) for the use of the specific name *pyrrhonota*.

TAXONOMIC HISTORY

Oberholser (1920) described *H. p. hypopolia* (type locality, Fort Norman, Mackenzie) as differing from nominate *pyrrhonota* (type locality, Paraguay) by its longer wing, whiter (less buffy) forehead extending farther back on the head, less rusty breast, grayer flanks, darker upper breast, and paler rump. He reported the breeding range of *hypopolia* as extending from central Alaska and Mackenzie District to central British Columbia and Montana. Oberholser (1932) later described *H. p. aprophata* (type locality, mouth of Twenty Mile Creek, Warner Valley, 9 miles south of Adel, Oregon) as differing from *hypopolia* by its more buffy (less clearly white) forehead and more extensively white lower parts. He gave the breeding range of

aprophata as the Warner Valley in central southern Oregon. Van Rossem (1936) synonymized *aprophata* with *hypopolia* and extended the range of the latter to east of the Cascades in the Pacific Northwest and Great Basin. Gabrielson and Jewett (1940), who did not discuss variation in the species, referred all specimens from Oregon to nominate *pyrrhonota* (sensu A.O.U. 1957). Miller (1941) referred to his series of topotypical *aprophata* from the Warner Valley, Oregon, as intermediate between the nominate subspecies and *hypopolia*. Aldrich (in Jewett et al. 1953) and Oberholser (1974) recognized both *aprophata* and *hypopolia*. The A.O.U. (1957) included the breeding range of *aprophata* within that of *hypopolia*, and Peters (1960), without comment, listed both *aprophata* and *hypopolia* as synonyms of nominate *pyrrhonota*. Behle (1976) concluded, as did Miller (1941), that the Warner Valley birds are intermediate between *hypopolia* and nominate *pyrrhonota*. Browning (1979) synonymized *aprophata* with *hypopolia*, as did Phillips (1986), who recognized *hypopolia* tentatively. Turner (1989) commented briefly that it is unlikely that *aprophata* is distinct from *hypopolia*.

Behle's (1976) review included measurements of wing chord and tail length and comparisons of the color and height of the pale frontal stripe (= forehead) and color of the abdomen, flanks, pectoral region (= upper breast), and rump. He did not quantify the extent of the pale portion of the forehead or discuss the frequency of color variants in other plumage characters. Behle concluded that variation in wing chord is clinal, with largest birds in Alaska and northwestern Canada. Although Behle concluded that the color of the upper breast and rump is not a useful taxonomic character, he described the abdomen and rump as paler and the chest and flanks as grayer in *hypopolia* than in nominate *pyrrhonota*. Behle also characterized *hypopolia* as differing from the nominate subspecies by its greater average wing and more "predominantly" white forehead. Phillips (1986:34), who excluded Alaska and central-southern Mackenzie from the range of *hypopolia* (contra Behle 1976), characterized *hypopolia* as differing from the nominate subspecies in its "usually somewhat paler" cheeks and throat and "average" paler rump, and he characterized some individuals of nominate *pyrrhonota* as having white foreheads. The minimum for wing length he gave for *hypopolia* (108 mm) was considerably less than that given by Phillips et al. (1964:100) ("about 112 millimeters or more"), and Phillips (pers. comm.) later concluded that wing chord is not a useful character for identifying the northern subspecies.

METHODS

I examined 222 specimens (breeding birds collected from late May to late July) for variation in size and forehead color, and 131 for variation in the color of the cheeks, rump, and lower parts. Except for six from Alberta, the specimens were grouped into eight geographic samples (Figure l) as follows (names of the samples used in the text are in capital letters):

A. Interior ALASKA, Yukon, and Mackenzie District;
B. Southeastern BRITISH COLUMBIA (majority from the Okanagan Valley);

C. ADEL, Warner Valley, Lake County, central southern Oregon;
D. IDAHO, western Montana;
E. WEST COAST (west of Cascade/Sierra Nevada divide from southwestern British Columbia to Merced County, California);
F. WEST SLOPE OF ROCKY MOUNTAINS (Wyoming and Colorado);
G. EAST SLOPE OF ROCKY MOUNTAINS (Montana, Wyoming, and Colorado);
H. NORTHEASTERN (NE United States and SE Canada).

Samples A–D and most of F represent *hypopolia*, and E, G, and H represent nominate *pyrrhonota* (sensu A.O.U. 1957). Phillips (1986) differed in placing most of A in the latter. Sample C is *aprophata* of Oberholser (1932) and Aldrich (in Jewett et al. 1953).

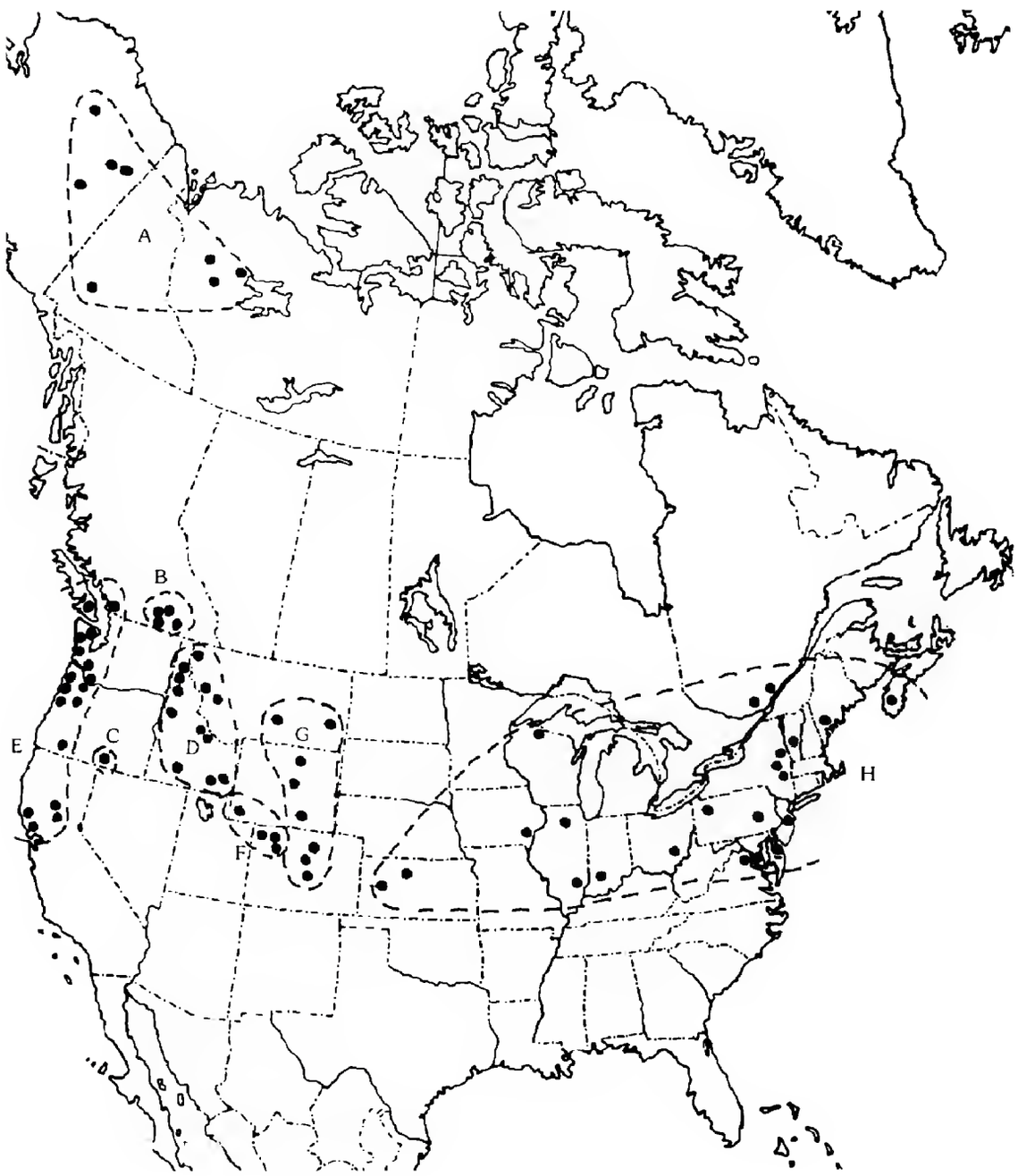

Figure 1. Approximate localities of specimens of *Hirundo pyrrhonota* examined. Dashed lines enclose the eight sample areas defined.

The sexes differed statistically (Student's *t* test) in mean wing length only in the samples from Alaska and Idaho. Because these differences were small, however, only 1.84 mm and 1.94 mm, respectively, and because wing measurements were not sexually dimorphic in other samples, data for males and females are pooled (Table 1). Sexual dimorphism was likewise not observed in other characters. I measured the height of the pale forehead (Table l) from the base of the exposed culmen to the point where the paler feathers meet the darker feathers near the top of the head. Some variation in that character is no doubt the result of specimen preparation. Preliminary data from measurements and other characters (e.g., tarsus length, bill size, throat color) revealed no geographic variation, and I did not consider them further.

I ranked the color of the forehead (Table 2) as pale (= white), dark (near Avellaneous of Ridgway [1912]), or intermediate. I ranked the cheeks as pale if near white, dark if near Bay of Ridgway and near Maroon (No. 31) of Smithe (1975). I ranked the color of the rump as pale if near white, dark if near Tawny of Ridgway, and near but redder than Robin Rufous (340) of Smithe. Because the gray color of the upper breast (Table 2) in most specimens is actually a combination of gray and Vinaceous Buff (Ridgway 1912), I considered the upper breast as gray when gray was the predominating color (= less buffy and not white). The color of the flanks (Behle 1976) is more individually variable than the other plumage characters and was not considered in this study. The term buff (= ochraceous of Behle 1976), used for characterizing the forehead, rump, and upper breast, refers to the color near Vinaceous Buff of Ridgway. Soiled, worn, damaged, and badly prepared specimens were excluded from my analysis.

Table 1 Measurements of Wing Chord and Height of the Forehead in Various Populations of *Hirundo pyrrhonota*

	Wing Chord			Height of Forehead		
Sample[a]	*n*	Range	Mean ± SD[b]	*n*	Range	Mean ± SD
A	19	108.4–114.9	112.3 ± 1.70	19	4.5–7.7	6.11 ± 0.82
B	19	101.4–114.4	109.2 ± 3.00	16	4.4–7.0	5.69 ± 0.65
C	29	107.0–114.4	109.9 ± 2.22	27	3.8–7.7	5.51 ± 0.99
D	25	107.0–115.2	110.3 ± 2.11	25	4.2–8.0	5.84 ± 1.12
E	46	102.1–112.6	107.5 ± 2.64	24	3.8–7.1	5.51 ± 0.95
F	11	106.6–113.6	110.9 ± 1.97	10	4.5–7.0	5.99 ± 0.83
G	38	100.1–117.0	109.4 ± 3.47	34	3.9–8.2	5.77 ± 1.10
H	29	101.1–112.6	107.6 ± 2.83	18	3.3–7.8	5.81 ± 1.16

[a]A, Alaska B, British Columbia; C, Adel (Oregon); D, Idaho; E, west coast; F, west slope of the Rocky Mountains; G, east slope of the Rocky Mountains; H, northeastern. For furter detail, see Figure 1.

[b]SD, standard deviation.

Table 2 Percentages of Plumage Character States in Various Populations of *Hirundo pyrrhonota*

	Sample[a]							
Character	A	B	C	D	E	F	G	H
Forehead (*n*)	(17)	(19)	(27)	(25)	(46)	(10)	(38)	(34)
Pale	76	37	52	72	26	20	45	12
Intermediate	12	58	37	16	63	70	29	26
Dark	12	5	11	12	11	10	26	62
Cheeks (*n*)	(19)	(11)	(12)	(27)	(19)	(6)	(12)	(18)
Pale	37	64	40	63	17	50	33	33
Rump (*n*)	(19)	(11)	(12)	(27)	(16)	(6)	(12)	(18)
Pale	32	36	38	37	32	33	25	28
Upper breast (*n*)	(18)	(11)	(12)	(27)	(19)	(6)	(12)	(18)
Gray	66	45	42	30	25	17	25	61
Lower parts (*n*)	(18)	(11)	(12)	(27)	(19)	(6)	(12)	(18)
Buffy	39	45	58	30	42	33	33	72

[a]A, Alaska; B, British Columbia; C, Adel (Oregon); D, Idaho; E, west coast; F, west slope of the Rocky Mountains; G, east slope of the Rocky Mountains; H, northeastern. For further detail, see Figure 1.

GEOGRAPHIC VARIATION

Wing chord. Although the Student's *t* test revealed statistically significant differences between the means in wing chord of some of the geographic samples (e.g., Alaska and British Columbia; east slope of the Rocky Mountains and the northeastern sample), the more conservative nonparametric Kruskal–Wallis one-way analysis of variance revealed no statistical difference between the means of the same samples. The mean of six birds from Alberta (not in a sample) is similar (111.9 mm) to that of the Alaska sample (see also Rand 1948). Measurements of individual specimens revealed that 41% of the birds from the west coast, which averaged the smallest, and 48% from the northeast, which averaged next to the smallest, are within the range of birds from Alaska, which averaged the largest (Figure 2). All specimens from the west coast and from the northeast are within the range of variation of birds from British Columbia. The ranges in wing chords of specimens from Adel, Idaho, and from the west slope of the Rocky Mountains are generally similar, with means larger than those of the samples from British Columbia, the west coast, east slope of the Rockies, and the northeast (Table 1). The degree of overlap precludes wing length as a useful taxonomic character.

Height of forehead. The height of the forehead (Table 1) averages slightly greater for birds from Alaska and the west slope of the Rockies, and slightly less for birds from the west coast and the northeast, than for specimens from the other localities. There is virtually complete overlap among all samples in this character.

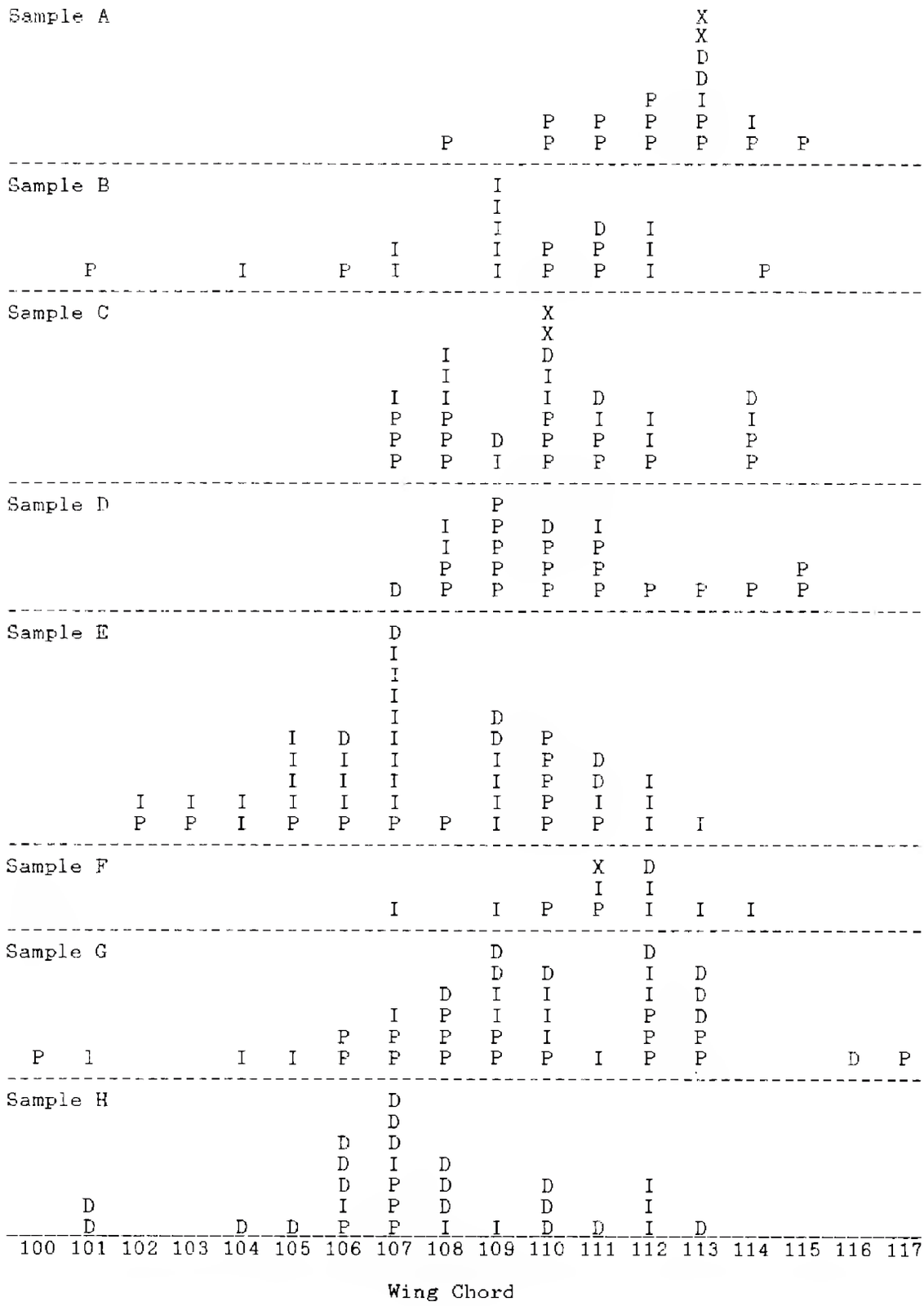

Figure 2. Frequency distribution of wing chord and forehead color (P, pale; I, intermediate; D, dark; x, specimen with forehead color indeterminable) in eight samples of *Hirundo pyrrhonota*. Wing measurements are rounded to nearest whole millimeter. A, Alaska; B, British Columbia; C, Adel (Oregon); D, Idaho; E, West Coast; F, west slope of the Rocky Mountains; G, east slope of the Rocky Mountains; H, northeastern. For further detail, see Figure 1.

Forehead color. The only sample with the forehead pale in 75% or more of the specimens is from Alaska. Sixty-two percent of the birds from the northeast have dark foreheads. More birds from west of the Rocky Mountains have either pale or intermediate foreheads (e.g., Alaska, 88%; west coast, 89%), whereas 88% of the specimens from the northeast have dark or intermediate foreheads. However, individuals with pale, intermediate, and dark foreheads were found in each of the samples (Table 2).

Cheek color. More specimens from British Columbia and Idaho have pale cheeks (Table 2) than do birds from elsewhere. About the same percentage of specimens from Alaska, Adel, the east slope of the Rockies, and the northeast have pale cheeks. More birds from the west coast have dark cheeks. Several authors (e.g., Behle 1976, Phillips 1986, Godfrey 1986) characterized the cheeks and rumps in *hypopolia* as "usually" pale. This study indicates somewhat the opposite conclusion, and may be the result of use of different specimens by different investigators. Cheek color is individually variable within populations, and geographic variation in this character is minor.

Rump color. About one-fourth of the birds from the east slope of the Rocky Mountains and about one-third of those in the remaining samples have pale rumps (Table 2). One half ($n = 6$) of the specimens from south-central Alberta (not a sample) have pale rumps. The color of the rump is subject to considerable individual variation.

Upper breast. The upper breast is gray in 66% of the specimens from Alaska (Table 2); 41% of the 66% are pure gray (no buff). The upper breast is gray in 42% of the specimens from Adel; the breast of the remaining specimens is buffy (26%) or white (33%). The upper breast is more buffy than gray in 75% of the specimens from the west coast and from both slopes of the Rockies. The upper breast among all populations varies from white to buffy, gray, and buffy-gray.

Lower parts. More specimens from the northeast than from elsewhere have buffy lower parts (Table 2). Although the buffy color is slightly darker in more specimens from east of the Rockies than from west of the Rockies, the darkest individuals are from Adel, British Columbia, and the west coast.

DISCUSSION AND TAXONOMIC CONCLUSIONS

Designations of specimens as resident breeding birds is complicated because some populations are breeding while some other populations are still migrating. Cliff Swallows breed as early as 5 April in California (Mayhew 1958), from early May to early August in British Columbia (Munro and Cowan 1947, Butler et al. 1986), and from June to early August in Alaska, where migrants arrive in mid-May (Kessel and Gibson 1978). Phillips (in Phillips et al. 1964) believed that migrants may visit local breeding colonies. Mayhew (1958) attributed additional birds at a breeding colony to late arrivals from the winter range.

I concede that some of the specimens I examined from the southerly localities may represent migrants from northern populations. However, whether migrants can be identified as *hypopolia* or *aprophata* is dependent on the amount of variation within those taxa and in nominate *pyrrhonota*.

Specimens from Alaska ("*hypopolia*") were most likely breeding birds. Only 18% of the Alaska sample with pale to intermediate foreheads did not overlap specimens from the northeast in wing chord. Specimens from other populations also overlap in all characters, whether compared separately (Tables 1 and 2) or in combination (Figure 2). I conclude that individual variation in the northern populations of *H. pyrrhonota* is too extensive to permit recognizing more than one subspecies. The names *hypopolia* and *aprophata* should be synonymized with *H. p. pyrrhonota*.

SUMMARY

Individual variation and extensive overlap among populations in wing length and several plumage characters precludes recognition of more than one subspecies of *Hirundo pyrrhonota* in northern North America. Cliff Swallows from this area belong to the nominate subspecies. The names *hypopolia* and *H p. aprophata* are synonyms of *H. p. pyrrhonota*.

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I extend my appreciation for access to specimens to the staffs of the following museums: Carnegie Museum of Natural History, Cleveland Museum of Natural History, Denver Museum of Natural History, Museum of Comparative Zoology, Museum of Vertebrate Zoology, Oregon State University, and University of Alberta. I thank D. W. Lamm and S. Speich for their useful comments on an earlier draft of the manuscript, and R. C. Banks for helpful comments and suggestions on a later version.

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Cliff Swallows collecting mud

Photo by © Daniel Lee Brown

NOTES

SOUTHERNMOST RECORDS OF WESTERN AND YELLOW-FOOTED GULLS

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On 27 April 1988 we visited the coastal lagoons at La Ventosa, 5 km east of Salina Cruz, Oaxaca, Mexico. Scanning through a flock of about 800 Laughing Gulls (*Larus atricilla*) and 200 Franklin's Gulls (*L. pipixcan*) we were surprised to see two adult Yellow-footed Gulls (*L. livens*). While we were watching these, a third large dark-backed gull flew over us and landed in the flock. As it appeared smaller, slighter, and paler-backed than the Yellow-footeds, the possibility of a Lesser Black-backed Gull (*L. fuscus*) crossed our minds. Closer examination, however, showed this bird to be a Western Gull (*L. occidentalis*). We approached the gulls to within 50 m and watched them at rest and in flight over the course of three hours. The following descriptions are taken from our field notes.

Yellow-footed Gulls: very large and heavily built (obviously larger than nearby Caspian Terns). Heavy bill orange-yellow with red gonys spot; legs and feet bright orange-yellow. Head and underparts white. Upperparts blackish slate; wingtips blacker with small inconspicuous white tips to outer primaries. Rump and tail white with no trace of dark tail band. As seen when the birds flew overhead, underside of primaries and secondaries dark. The two birds appeared similar in size and stayed close together at all times.

Western Gull: a large gull, clearly larger than Caspian Tern but noticeably smaller than the Yellow-footed Gulls (therefore perhaps a small female?). Bill relatively heavy (but less so than the Yellow-footeds'), yellow with red gonys spot; legs dull pink. Head and underparts white. Upperparts slaty gray, similar in shade to those of an adult Laughing Gull, and very worn; wing-coverts frayed and faded, blackish wingtips worn and faded with no white tips visible. Rump and tail white, rectrix tips very worn. As seen when the bird flew overhead, underside of primaries and secondaries dark, though secondaries slightly paler. Although at times standing near the Yellow-footed Gulls, the Western Gull stayed mostly apart and at one point flew off alone toward the coast, returning some 30 minutes later.

We are very familiar with both species, and the identifications were facilitated by the birds' being adults. The relatively pale gray upperparts of the Western Gull suggest the northern-breeding subspecies, *L. o. occidentalis,* for which, surprisingly, there appear to be no Mexican records (Friedmann et al. 1950, Wilbur 1987). The small size, however, suggests the darker-backed southern subspecies *L. o. wymani* (LeValley 1980). Binford (1989) did not list either species from Oaxaca, and we are aware of no other records from the state.

Although Yellow-footed Gulls have been recorded from Guerrero, in November 1983 (Pitman 1986), April 1973 (Jehl 1974), and on 23 May 1990 (an adult at Bahia Papanoa, pers. obs.), we have found no confirmed records of the Western Gull south of the tip of Baja California, although "a report from the Revillagigedo Islands (Isla Clarión) probably pertains to this species" (American Ornithologists' Union 1983). The source of reports of the Western Gull from Sinaloa and Nayarit (A.O.U. 1983) is unclear, and these reports more likely refer to the Yellow-footed Gull (Friedmann et al. 1950). In addition, Stiles and Skutch (1989) mentioned a Western

or Lesser Black-backed Gull from Costa Rica, although the observer considers the bird to have been a Lesser Black-backed Gull (S. Perkins pers. comm.). Our Oaxaca records thus appear to represent the southernmost records of both species, and are remarkable for their coincidence.

Other interesting birds present at the Salina Cruz lagoons on 27 April 1988 included 11 Hudsonian Godwits (*Limosa haemastica*), 18 days earlier than Binford's earliest record, eight adult Gull-billed Terns (*Sterna nilotica*), apparently paired, and two immature Sandwich Terns (*Sterna sandvicensis*).

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TIDEWATER BREEDING RECORDS OF THE WESTERN GREBE NEAR VANCOUVER, BRITISH COLUMBIA

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The Western Grebe (*Aechmophorus occidentalis*) is a widespread breeding species in North America, nesting from south-central British Columbia and southeastern Manitoba south to Mexico (American Ornithologists' Union 1983). This note reports two apparent breeding records near Vancouver, British Columbia, which we believe represent the first breeding records for this species on tidewater.

On 29 August 1986, Ireland observed an adult Western Grebe with two small downy young in the brackish marsh off the Reifel Migratory Bird Sanctuary, Westham Island, British Columbia, at the mouth of the Fraser River. The chicks were seen subsequently on several dates during the following week, together with up to 130 adult Western Grebes that were summering in the area. Migrant Western Grebes do not begin arriving in the Vancouver area until mid- to late September.

On 14 September 1988, Weber observed two downy young Western Grebes, less than half-grown, with a pair of adults in the same area, just off the Reifel Migratory Bird Sanctuary. One of the adults spent nearly the whole observation period (about 15 minutes) with a chick on its back; the other adult dived several times and appeared to be feeding the second chick, which was in the water between the two adults. About 60 adult Western Grebes were present nearby. Subsequently, on 2 October 1988, Brian G. Self and D. Michael Price watched what was probably the same pair of Western Grebes with two young in the same place. In this case as well, one young was riding on an adult's back.

The Western Grebe is a localized breeding species in British Columbia, with confirmed breeding recorded previously at only seven localities, all in the south-central and southeastern parts of the province: Williams Lake, Kamloops Lake, Salmon Arm, Swan Lake near Vernon, the north end of Okanagan Lake, the south end of Kootenay Lake, and Duck Lake near Creston (Weber 1980, Cannings et al. 1987, Forbes 1988). An eighth breeding locality reported by Forbes (1988), at White Lake near Salmon Arm, is unconfirmed (R. Wayne Campbell pers. comm.). The Western Grebe was considered threatened in British Columbia (Weber 1980) because of its local distribution and the vulnerability of its nesting sites to disturbance. A reference to this species' breeding in southeastern Alaska (American Ornithologists' Union 1983) is erroneous (Daniel D. Gibson pers. comm.).

The two breeding records from Westham Island constitute the first known breeding records for Western Grebes in coastal British Columbia and, so far as we know, the first breeding records on tidewater anywhere. Although no nests were actually seen, the small size of the young observed in both 1986 and 1988 makes it certain that they were hatched nearby. The marshes at the mouth of the Fraser River are brackish and include large areas of cat-tail (*Typha latifolia*), and appear somewhat similar to the normal freshwater breeding habitat of Western Grebes. However, these brackish marshes are subjected to a mean daily tidal range of 3.1 meters, with an extreme range of 4.8 meters (Fisheries and Oceans Canada 1989). This must make nesting difficult, and it is likely that most Western Grebe nests started there are unsuccessful. The late dates of the young birds observed in both 1986 and 1988 suggest that they may have resulted from late renestings following earlier, unsuccessful nesting attempts.

It is possible, though we believe it quite unlikely, that the Western Grebe chicks we saw may have been hatched somewhere along the Fraser River, and drifted down to the river mouth with their parents. The only area of potentially suitable habitat along the lower Fraser River is the Ladner Marsh, about 6 km east of the river mouth. However, even the Ladner Marsh has an extreme tidal range of more than 3.0 meters; furthermore, Western Grebes have not been seen there during the breeding season.

A flock of 50 to 100 Western Grebes is present off Westham Island most summers, but there was no indication of breeding prior to 1986. It remains to be seen whether breeding attempts at this locality will become regular or whether these two records represent isolated occurrences in atypical breeding habitat for the species.

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WHITE-WINGED CROSSBILL BREEDING IN SOUTHERN COLORADO, WITH NOTES ON JUVENILES' CALLS

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From 3 to 11 June 1987 I camped near Spring Creek Pass, elevation 11,100 ft., San Juan Mountains, Hinsdale County, Colorado, to record and collect Red Crossbills (*Loxia curvirostra*). The site was in forests dominated by Engelmann Spruce (*Picea englemannii*) and Quaking Aspen (*Populus tremuloides*) with interspersed grassy meadows. Patches of deep snow were present under trees and in shadier areas. The spruces had a heavy crop of cones which were drying and losing seeds. Moderate numbers of Red and White-winged (*L. leucoptera*) crossbills occurred around the camp. Single individuals and small groups of two to three birds of a single species were most frequent (some larger flocks were noted), and many of the 22 Red Crossbills I collected at this locality were in breeding condition. Pine Siskins (*Carduelis pinus*) were also conspicuous and performing circular courtship flights in the area. Mixed aggregations consisting of dozens of the three species were seen on some afternoons, with all three species in song. Birds foraged in the spruces and came down to the ground to eat snow and grit.

A female White-winged Crossbill was collected (MVZ 171432) on 6 June. The specimen had a slightly enlarged oviduct and the diameter of its largest ovarian follicle was 1.5 mm, indicating the bird was near breeding condition. The following day (7 June) I observed a bright pink male White-winged Crossbill giving loud barking calls and attacking two Gray Jays (*Perisoreus canadensis*) low in the spruces near the camp. This interaction was near a tree next to which I had placed a caged female Red Crossbill. The Gray Jays retreated and were chased by the male White-winged Crossbill for a few meters. I then collected the White-winged Crossbill (MVZ 171433). Its testes were greatly enlarged by crossbill standards (left, 7.1 × 4.9 mm; right, 6.6 × 6.2 mm). After I retrieved the specimen, I noticed a tiny juvenile White-winged Crossbill on the ground near the place of commotion with the jays. The baby hopped toward the caged Red Crossbill and began to give loud begging calls and flutter its wings. This behavior continued for several minutes. Calls of the bird were different from those I have recorded from many juvenile Red Crossbills (Figure 1), and the calls' distinctiveness may allow observers to identify these otherwise cryptic birds in the field. The juvenile had the white wingbars typical of White-winged Crossbills, but these were difficult to observe except at very close range. It was too young to fly, and I captured it by hand and prepared it as a specimen (MVZ 171434). It was a female with an ovary 2.5 × 2.0 mm, an uncrossed bill with a length (from nostril) of 8.7 mm, a wing chord of 72.1 mm, a tail length (to longest rectrix) of 40.1 mm, and a body mass of 17.8 grams, all measurements much smaller than those of full-grown White-winged Crossbills. The outer rectrices of adult crossbills are typically much longer than the inner ones, but the juvenile's longest rectrices were the medial ones, showing incomplete growth of the tail. My observations of Red Crossbill nestlings suggest that the exit of the juvenile White-winged Crossbill from its nest was premature. The adult male's mobbing behavior suggests that it was the father of the juvenile.

No nests of the White-winged Crossbill have yet been found in Colorado, but flying juveniles have been observed in recent years. For the summer of 1988, Kingery (1988) stated "two pairs of White-winged Crossbills near Cameron Pass, CO, had young with them too independent to qualify for Colorado's first breeding record." For the winter of 1988–1989, Kingery (1989) reported "6 pairs seen at Cameron Pass,

one gathering nesting material." Since it could not fly, the baby bird I collected must have fledged in the area right around the camp, providing the most direct evidence yet for nesting of this species in Colorado. Other evidence suggesting breeding in Colorado includes my observation of a pair of White-winged Crossbills on 6 August 1985 drinking water from a pond on the White River Plateau, 10 mi. S and 2 mi. E of Buford, elevation 10,000 ft., Rio Blanco County, in Engelmann Spruce and aspen forests. I collected the female of the pair (MVZ 171137); it had a well-developed incubation patch, enlarged oviduct, and a largest follicle 1.6 mm in diameter. I saw or heard no additional White-winged Crossbills at that locality.

There is evidence for a general southward expansion of the range of the White-winged Crossbill in western North America (see Gordon et al. 1989). In earlier decades of this century, this species was apparently more rare in the Rocky Mountain region. Bailey and Niedrach (1965) described its status in Colorado as a "rare straggler." More recently, Worthen (1973) reported three summer specimens from Utah, with the two males having testes near the size of those of breeding crossbills (5 × 4 and 6 × 5 mm; the single female was not in breeding condition). Smith (1978) found a breeding population of 30–50 individuals in the Bear River Range of Utah, providing the southernmost confirmation of breeding of the species (with the exception of the Hispaniolan subspecies, *L. l. megaplaga*). Hubbard (1982) reported a pair feeding a fledgling on Wheeler Peak in the Sangre de Cristo Mountains of New Mexico on 20 September 1981, suggesting breeding somewhere in the southern

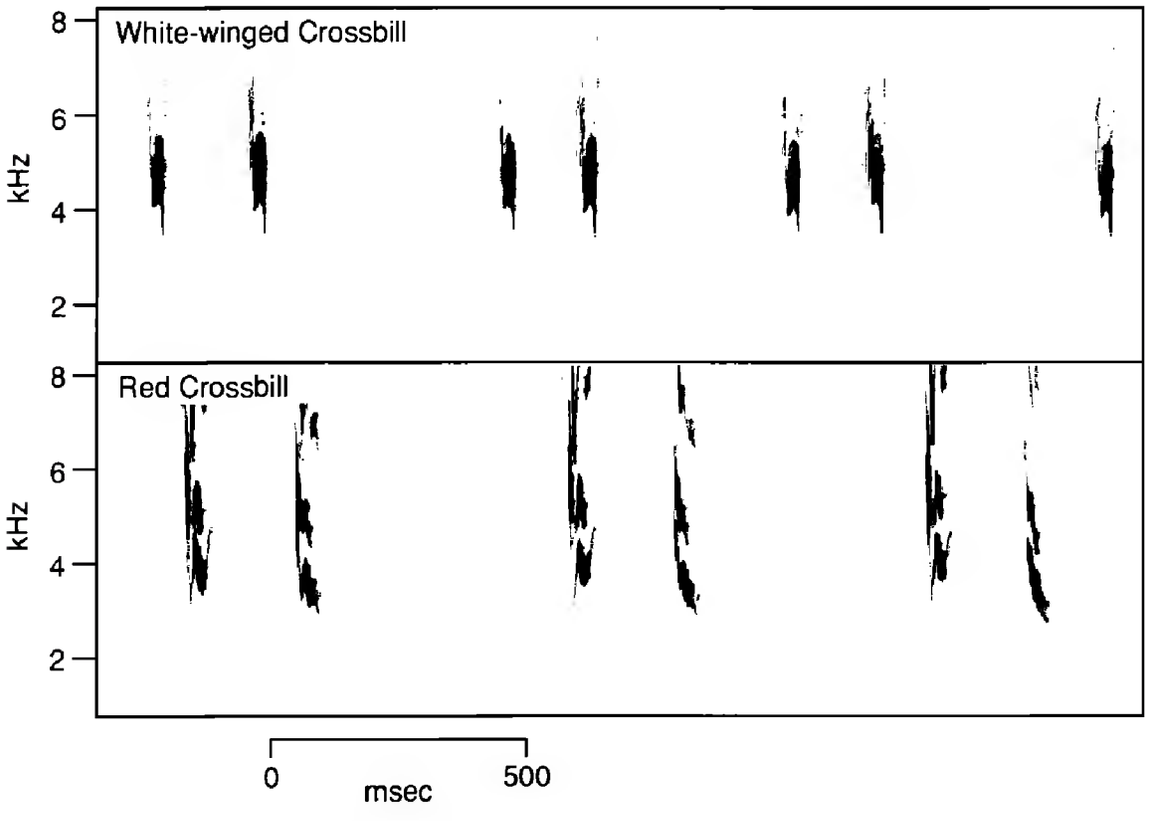

Figure 1. Audiospectrograms of begging calls of juvenile White-winged and Red Crossbills. Note that the Red Crossbill has two structurally different notes ("chit-too") while the White-winged Crossbill repeats a single note ("chit"). The audiospectrograms were prepared on a Kay Elemetrics 6061B spectral analyzer at the 80–8000 kHz frequency setting with the wide band pass filter. The juvenile Red Crossbill was recorded in Lodgepole Pine (*Pinus contorta*) forest at Barnes Flat, 11 mi. N and 4 mi. W of Westwood, elev. 5500 ft., Lassen Co., California, on 30 August 1987.

Rocky Mountain region, probably in New Mexico. The AOU Checklist Committee (1983) described the southwestern limits of the breeding range of *L. l. leucoptera* as "isolated populations breeding irregularly in northern Utah, northwestern Wyoming, and probably north-central New Mexico"; however, nesting has not been documented farther south than Smith's (1978) record. My discovery provides a southernmost record of breeding of *L. l. leucoptera* for North America, but further breeding accounts may be forthcoming if the range expansion continues and observers pay attention to crossbills.

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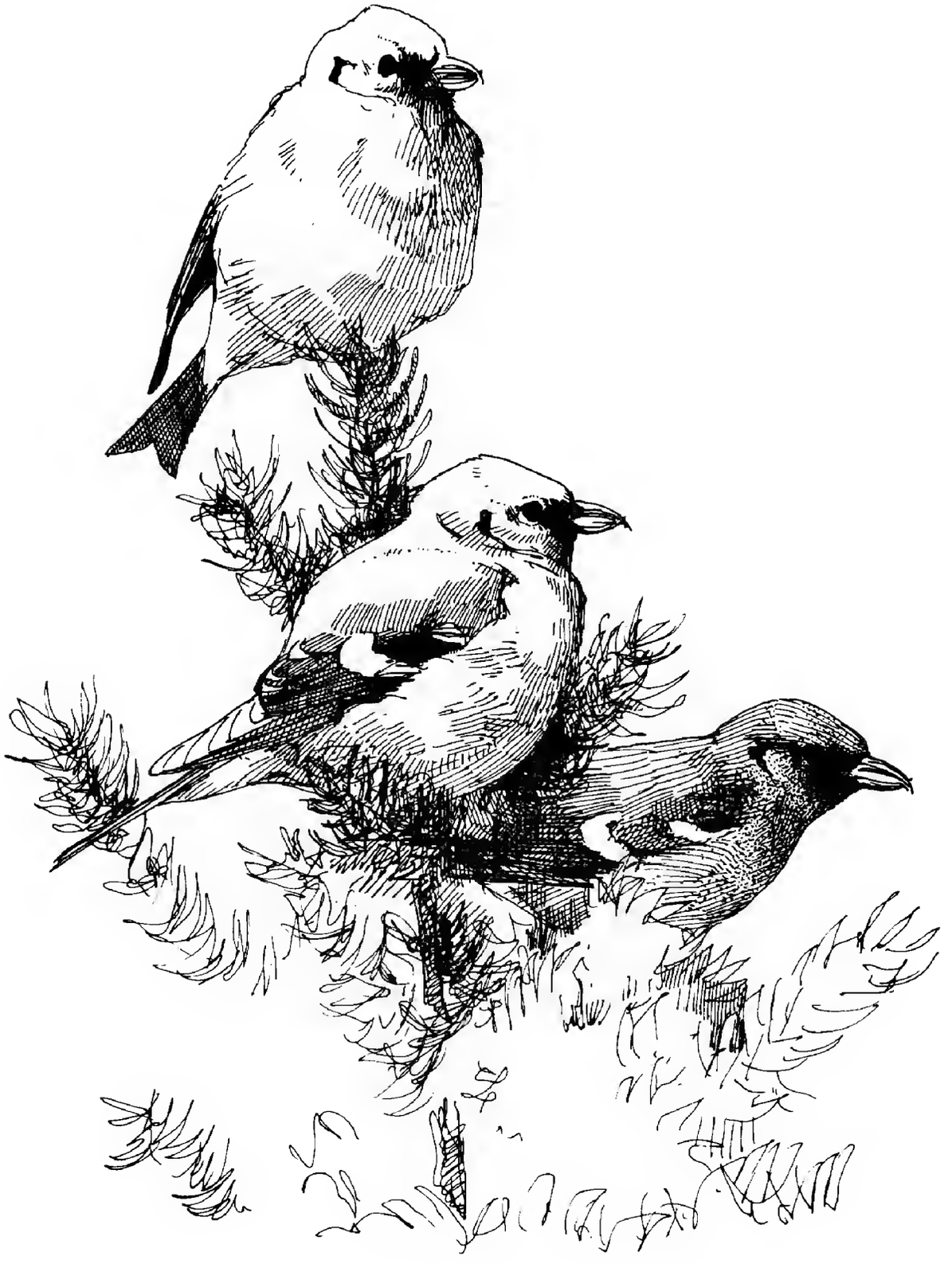

White-winged Crossbills *Sketch by David Sibley*

THE STATUS OF THE FRANKLIN'S GULL IN IDAHO

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Observations of Franklin's Gulls (*Larus pipixcan*) in Idaho have been limited. This paper summarizes recent published and unpublished records, and shows that this gull has increased in the state. Franklin's Gull was first recorded in Idaho at Minidoka Dam, Snake River, on 28 July 1910 by Stanley Jewett (Slipp 1942). Through the early 1970s it was recorded from several wetlands in southeastern Idaho, but was known to breed only at Gray's Lake, Caribou Co., site of a large colony, and at Lake Walcott, Minidoka Co., where about 1000 pairs nested (Burleigh 1972). One bird collected near Lewiston, Nez Perce Co., and two collected near Meridian, Ada Co., furnished the only records outside of southeastern Idaho (Burleigh 1972).

The Franklin's Gull is now a more widespread and abundant breeder in Idaho. Liven Peterson (unpubl. data) found 300 pairs nesting at Lake Walcott in 1976, although this colony was probably inactive in 1984 (Charles Trost pers. obs.). At Gray's Lake from 1971 to 1973 over 15,000 pairs were estimated to be nesting, each year producing 13,000 to 15,000 young [*American Birds* (AB) 25:885, 1971; 26:789, 1972; 27:899, 1973], and 15,000 pairs were estimated to be nesting here in 1976 (L. Peterson unpubl. data). Large numbers nested at Gray's Lake in the 1980s (Steve Bouffard pers. comm.), with an estimated 10,000 to 15,000 pairs in 1984 (Eugene Barney unpubl. data). At Bear Lake National Wildlife Refuge (NWR), Bear Lake Co., breeding pairs increased from several hundred in 1976 (L. Peterson unpubl. data), to between 1500 and 10,000 from 1979 to 1986 (Gary Deutscher pers. comm.). At Market Lake Wildlife Management Area, Jefferson Co., 50 pairs nested in 1973 (L. Peterson unpubl. data), and 190–210 pairs suffered nest failure in 1984 (C. Trost unpubl. data). Sporadic nesting has also occurred at North Lake Wildlife Management Area, Jefferson Co. (L. Peterson unpubl. data), with 160 nests estimated in 1984 (C. Trost unpubl. data). The "suspected nesting" at American Falls Reservoir, Power Co., in 1985 (AB 39:940, 1985) was not supported by further observations (C. Trost pers. comm.).

There are now many more records of non-breeding Franklin's Gulls from Idaho. In northern and central Idaho Franklin's Gulls have been seen in spring and summer at Kootenai NWR, Boundary Co. (AB 26:785,1972; 34:798, 1980; 39:940 1985), Lewiston, Nez Perce Co. (Weber 1981, AB 42:1319, 1988), Salmon, Lemhi Co. (AB 40:500, 1986), Coeur d'Alene Lake, Kootenai Co. (AB 43:512, 1989), Cascade Reservoir, Valley Co. (AB 33:882, 1979), and the Taylor Ranch Research Station in the Frank Church River of No Return Wilderness, Idaho Co. (AB 31:1164, 1977). This species is less frequent in these parts of the state in fall, but it has been recorded at Kootenai NWR (AB 41:120, 1987), Coeur d'Alene Lake (AB 38:226, 1984), and Sandpoint, Bonner Co. (AB 39:80, 1986). Records from southwestern Idaho have come from Lake Lowell and Dry Lake, Canyon Co. (AB 36:200, 1982; AB 37:893, 1983; pers. obs. in 1989 and 1990), Mountain Home Reservoir, Elmore Co. (AB 37:893, 1983), along the Snake River in Ada and Canyon counties (G. Kaltenecker pers. comm.), and Hubbard Reservoir, Ada Co. (AB 38:226, 38:938, 1984).

There are numerous records of Franklin's Gulls in southeastern Idaho away from the known breeding colonies listed above. A particularly important concentration has been at American Falls Reservoir, where I have observed birds throughout the 1980s from late July through August. The annual peak has usually been between 550 to 2500 birds, but 5500 individuals were present on 5 August 1987. Birds at American Falls Reservoir were roosting, feeding in the shallow water of the reservoir, or hawking insects in the evening.

These data indicate that Franklin's Gull has very probably increased in Idaho during historical times. The only early ornithologists in southeastern Idaho (Merriam 1873, 1891, Rust 1917) failed to record it, but did not visit several of the known nesting sites. Ryser (1985) noted that 19th-century ornithologists failed to record it in the Great Basin, where there are now several expanding breeding colonies. At Malheur NWR in southeastern Oregon this species has increased almost continuously since first being recorded in the 1940s (Littlefield and Thompson 1981, Littlefield 1990). The increases in Idaho thus appear to be part of an increase throughout much of the Intermountain West, and several other areas may be colonized in the future.

I thank C. H. Trost, G. L. Deutscher, S. Bouffard, E. Barney, W. Hoffman, G. Kaltenecker, and personnel of the Southeastern Idaho National Wildlife Refuge Complex for sharing their information with me.

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BREEDING BIRD RECORDS FROM MONTAGUE ISLAND, NORTHERN GULF OF CALIFORNIA

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Early in this century, Leopold (1949) described the Colorado River delta as a wild majestic paradise for wildlife. Since Leopold's day, the river has been broken up by dams to sustain agricultural and urban development. Despite the area's previous importance to wildlife, little research has been done there. We know of only a few old works on the ornithology of the area (Murphy 1917, Price 1899, Stone and Rhoads 1905). Therefore, from 0940 to 1200 on 5 June 1991 we made a preliminary reconnaissance of the birds of Montague Island, in the Colorado Delta, Baja California (Figure 1). We focused our effort on Estero del Chayo, a channel cutting into the southern part of Isla Montague. The island is formed by river sediment and has a simple vegetation consisting of saltgrass (*Distichlis palmeri*) on the banks adjacent to the channels of the estero. Away from the channels, unvegetated dry mudflats dominate. There is an extensive mudflat south of the island.

We observed the following breeding or possibly breeding birds:

Black-crowned Night Heron (*Nycticorax nycticorax*). We saw about 40 adults on saltgrass patches on the eastern bank of Estero del Chayo.They were distributed in pairs, but we were unable to survey the area and see if they had nests, as we suspected.

Great Blue Heron (*Ardea herodias*). We saw one adult and one immature standing on the east bank of Estero del Chayo. The presence of an immature suggests breeding in the area.

Snowy Egret (*Ardea thula*). We estimated at least 100 nests with eggs, in a mixed colony with Laughing Gulls (see below). The nests were platforms of dry saltgrass twigs placed over flattened saltgrass on the edge of the banks of the channels. The average clutch size was 3.1 eggs (range 1–6; $n = 84$). Within a cluster of nests, the distance between nests of this species varied from 0.5 to 1 m. Minimum distance between a gull's nest and an egret's nest was 0.5 m.

Although van Rossem (1945) considered that northern Gulf records of the Snowy Egret were probably of wintering and postbreeding individuals, there are actual breeding reports for the Colorado River delta area (Bancroft 1927, Mora 1989, Wilbur 1987), the Río Hardy area, (Stone and Rhoads 1905), the lower Colorado River and Imperial Valley (Garrett and Dunn 1981, Rosenberg et al. 1991). Murphy (1917) reported no nesting of the birds, but he learned of their being hunted for their nuptial plumes, which were later smuggled across the international frontier.

Laughing Gull (*Larus atricilla*). We found a breeding colony of Laughing Gulls, together with the breeding Snowy Egrets, along the east bank of Estero del Chayo. The nests were round bowls made of dry saltgrass twigs and placed among the saltgrass. We counted 60 nests. The mean clutch size was 2.68 eggs (range 1–3; $n = 46$). We saw one nest with two and another with three live chicks. One nest had one dead chick. Average intracluster distance between nests of gulls was 7 m (range 3–11; $n = 10$).

On the Pacific coast, this species breeds in Sonora and Sinaloa (AOU 1983). It bred at the Salton Sea from 1928 (Miller and van Rossem 1929) to 1957 (Garrett and Dunn 1981). Van Rossem (1945) reported that the species was common in late

spring and early summer in the coastal lagoons from Guaymas southward. Friedman et al. (1950) indicated that it was common in late spring, about to breed, in Sonora, but reported actual breeding only in Sinaloa and Nayarit, on the Pacific coast. Neither Wilbur (1987) nor Everett and Anderson (1991) reported this bird as a breeder in the area. Our record is the first report of this species breeding in both the upper Gulf of California and in the state of Baja California.

Elegant Tern (*Sterna elegans*). A few were feeding at the mouth of Estero del Chayo, and several were flying over the nesting colonies of Laughing Gulls and

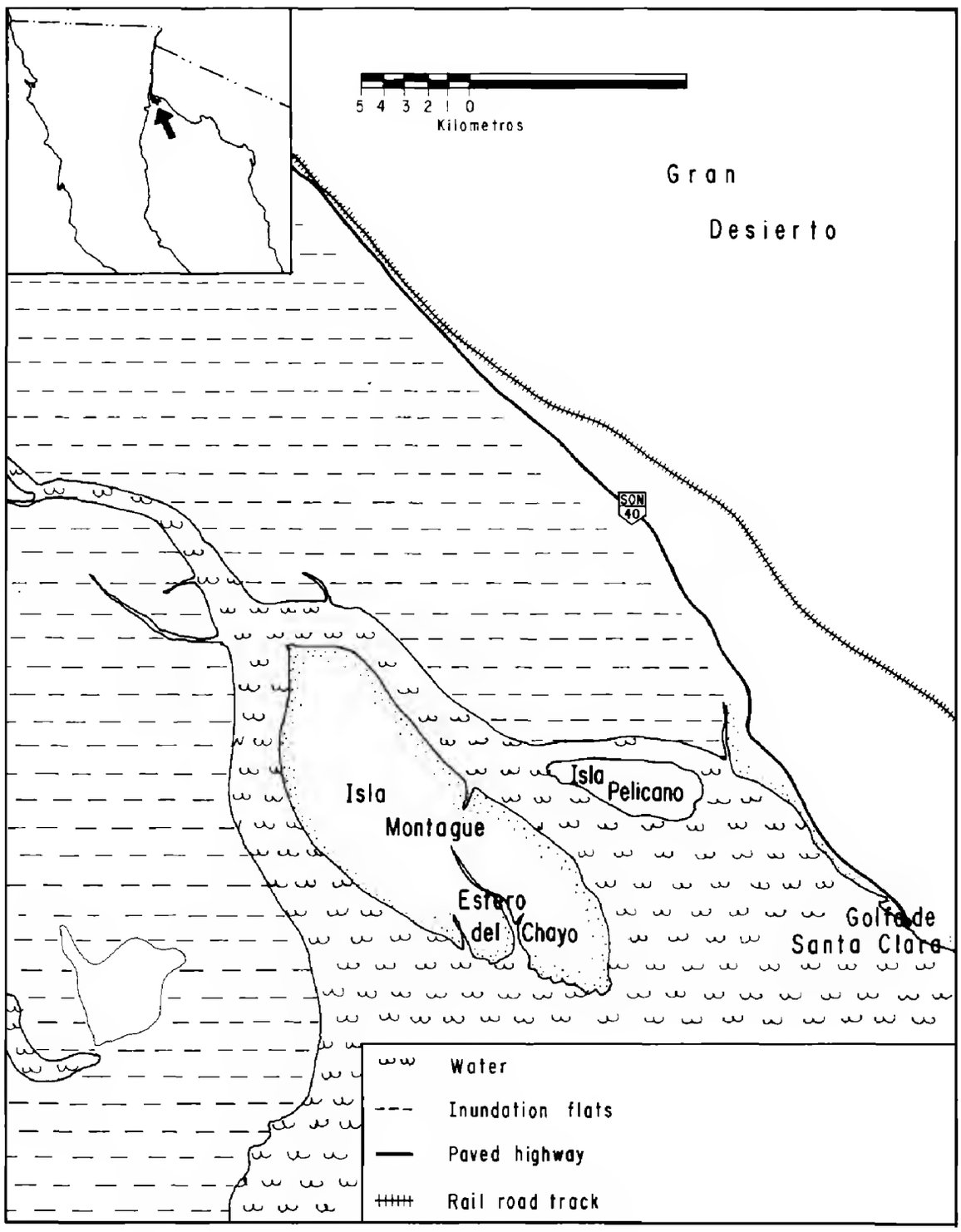

Figure 1. Estero del Chayo, Isla Montague, Baja California.

Snowy Egrets. These terns were defending the site, together with the gulls. This defense behavior is associated with breeding (Bent 1921), but we did not find any tern nests.

Least Tern (*Sterna antillarum*). We saw five individuals carrying fish at the mouth of Estero del Chayo. This behavior might represent the feeding of young by adults (Massey 1974). Considering this activity, the habitat, and the time of the year, we suspect that the species nests at this location, but were unable to verify this because of the low tide and the large size of the mudflats. If so, this record would add to the list of the species' known breeding sites.

The birds of the area face some environmental threats, summarized by Everett and Anderson (1991). Although egging was formerly practiced at Isla Montague, at present it seems to be done no longer, according to local informants and our field observations. Egging or other human disturbance could easily resurge, however, especially in view of the intensive clam gathering on the mudflats, close to the nesting sites. Also, the area receives some fresh water from the Colorado River, which includes pesticide-laden agricultural runoff. Pesticide accumulations have been detected in marine invertebrates of the upper Gulf of California and the valley of Mexicali (Gutierrez-Galindo et al. 1988). Studies on birds in the upper Gulf have revealed low levels of a wide variety of contaminants, some of which might have harmful effects on some species. Our preliminary observations indicate a need for further study of the distribution and temporal fluctuations of birds in this area, and of the threats to them.

"Chino" Tapia kindly took us to the island. Dan Anderson and Bill Everett carefully reviewed this paper. Philip Unitt greatly assisted in obtaining information and editing the article.

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BOOK REVIEW

GUY McCASKIE, 954 Grove Street, Imperial Beach, California 91932

Birds of the Lower Colorado River Valley. 1991. Kenneth V. Rosenberg, Robert D. Ohmart, William C. Hunter, and Bertin W. Anderson. University of Arizona Press, Tucson. 416 pp., 33 black and white figures and 6 tables. Price: $40.00 clothbound.

The Colorado River, running from its sources in the Rocky Mountain areas of Wyoming and Colorado to its mouth at the head of the Gulf of California, is the only large body of water passing through the arid areas of southern Nevada, western Arizona, and southeastern California. The flow of this once mighty river is now controlled and managed for human benefit. There is a series of dams, and most if not all of the water is diverted before it reaches the delta. This river has always supported a rich variety of life, but the major changes recently imposed by man have affected, and still are affecting, that life. *Birds of the Lower Colorado River Valley* covers the birdlife along that portion of the river running from Davis Dam in southern Nevada to the Mexican boundary, summarizing the past and present status of the more than 400 species reported from this stretch of the river.

All four of the authors were part of a research team conducting a 12-year study of plant–animal–habitat relationships along the lower Colorado River, so know the current status and distribution of the birds in the area. They had access to Gale Monson's unpublished field notes gathered during his 16-year tenure along the Colorado River starting in 1942, and took full advantage of them to determine recent changes in status and distribution. In addition they relied on articles and notes in various scientific journals and reports to determine the historic status of many species and to assure the inclusion of all records from the region.

The authors followed the format used in most regional bird books, with the individual species accounts taking up most of the pages. However, the introductory chapters are lengthier than those found in most similar books, taking up more than 100 pages. The introduction presents a brief but clear picture of the Colorado River drainage basin and its dominant vegetation, pointing out the influence this river has had on the area around it, and the influence man has had upon it.

One of the first chapters outlines the history of human use along the river's course, and the resultant changes in the vegetation and birdlife. Another chapter summarizes the authors' research, listing the various habitats to be found along the river, along with the bird species utilizing them during the various seasons of the year. This is followed by a chapter containing information on types of conservation felt to be necessary to reverse the spiral of habitat degradation in this region.

One chapter is devoted to patterns of bird distribution, giving a general overview of those species considered permanent residents, summer and winter visitors, and those species regularly migrating along the river and straying into the area. A most useful feature in this chapter is a series of graphs depicting migration periods for some of the commoner water and landbird migrants regularly using the Lower Colorado River as a flyway.

An interesting addition to the book is a chapter on finding birds in the Lower Colorado River Valley that will be useful to birders and ornithologists alike visiting the area. This chapter is accompanied by detailed maps covering the ten most productive areas, along with information about the birds to be found in each of these areas. A very useful table accompanying this chapter lists avian activities among the resident and migrant species on an almost weekly basis through the year, allowing the reader to determine quickly what to expect at any time of the year.

The heart of this book, the species accounts, covers the status and habitat preference of each of the 400 species known to occur along the Lower Colorado

River, along with information on their breeding and food habits where appropriate, and additional comments about each species where informative. Hypothetical species are listed in a separate appendix, which includes only those ten species felt likely to have occurred, omitting obvious escapees and misidentifications.

The species accounts vary in length from more than four pages, as in the case of the well-studied Clapper Rail, to a few lines for such accidental and casual stragglers as the Least Storm-Petrel and Le Conte's Sparrow, and include species added to the list as recently as the winter of 1989–1990, such as the Yellow-billed Loon. There are lengthy and very informative accounts of the decline, disappearance, and reintroduction of the Harris' Hawk, the colonization and decline of the Brown-crested Flycatcher, and the colonization and success of the Great-tailed Grackle to name just a few. In addition there are disheartening accounts of the Yellow-billed Cuckoo, Vermilion Flycatcher, Bell's Vireo, and Summer Tanager, all dependent on cottonwoods and willows, and all declining as rapidly as the habitat upon which they depend. However, it is encouraging to learn that the Lucy's Warbler has adapted to the widespread and ever increasing saltcedar, thus increasing in numbers after nearly disappearing from the river valley in the 1950s. Perhaps there is hope for other species.

For those interested in state lists, the accounts include five species recorded only on the Arizona side of the river that are not yet documented as occurring in California, and one species recorded only on the California side of the river not yet documented as occurring in Arizona. However, as is evident from species' accounts such as those of the Upland Sandpiper and Kentucky Warbler, it is difficult to determine from which side of the river many of the records come.

I would have liked to see more documenting photographs included. The fine photograph of a Red-necked Grebe on Lake Havasu in 1981 and the Mew Gull at Davis Dam in 1979 are still the only solid documentation for these species' occurrences in Arizona. Why not include a picture of the Northern Jacana photographed at Mittry Lake in 1986 and the Rusty Blackbird photographed in Lake Havasu City in 1982? I encourage authors of future works of this nature to follow the example set in *The Birds of British Columbia* by R. Wayne Campbell et al. (Royal British Columbia Museum, 1990), where even specimens of significant records are photo-represented.

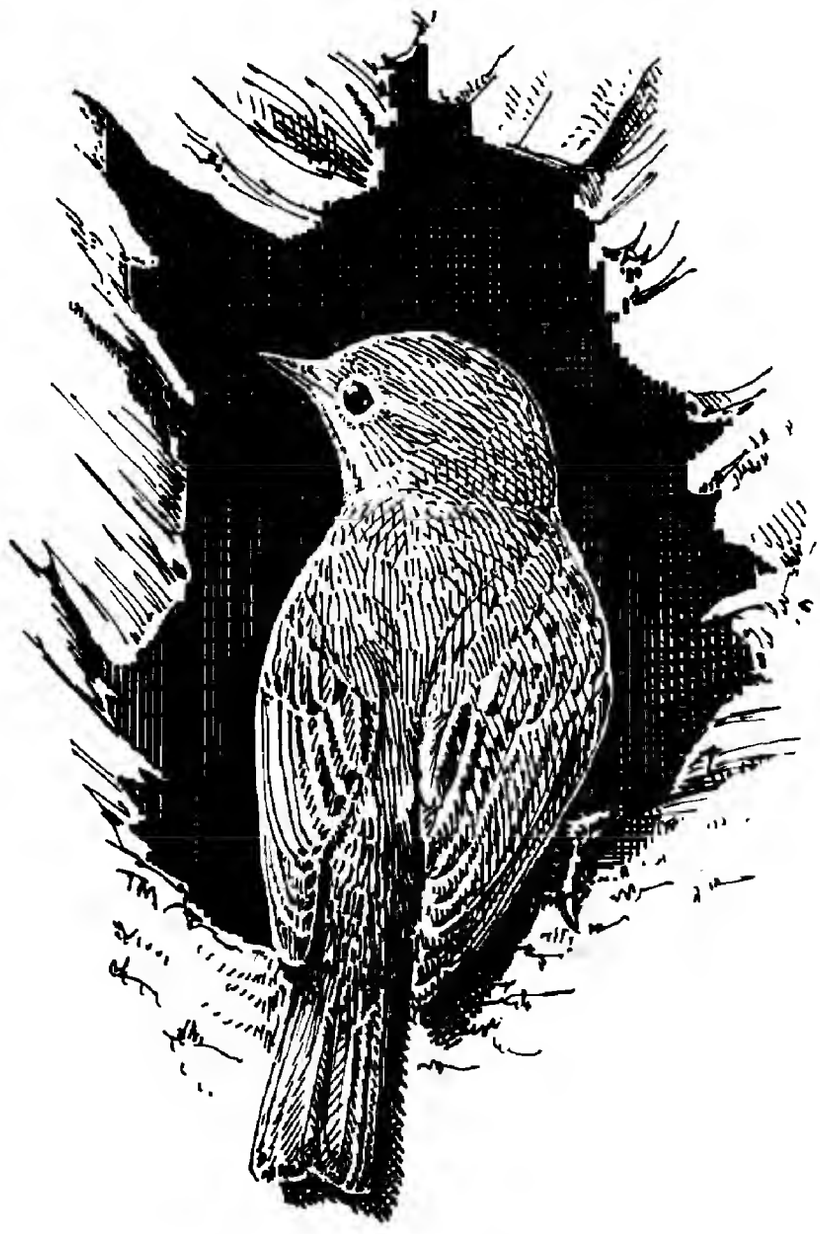
The authors indicate that only those sight records accompanied by written details, and reviewed by either them or the appropriate state review committees, are included. However, I find the undocumented sighting of the Least Grebe near Imperial Dam in 1955 included, this record having never been reviewed by the California Bird Records Committee. This only leads me to ask how many other such records are included. Even more disturbing is the inclusion of a few records that have been rejected by the appropriate state review committee, such as that of the Painted Bunting north of Blythe in 1982.

My only major criticism of the book is the virtual lack of references for specific records of rarities, unseasonable occurrences, racial identifications, and the location of specimens and photographs, an unfortunate trend that is apparent in a number of recent works of this nature. Thus, the curious reader will find him or her self unable to learn more about such remarkable records as that of a Common Nighthawk collected near Bard in 1924, a Green Kingfisher seen in the Topock Marsh in 1988, an unseasonable Pectoral Sandpiper at Martinez Lake on 30 December 1957, or the White-winged Juncos at Ehrenberg and east of Yuma without doing much detective work. Dates for specific records are generally correct, though the fact that the Pinyon Jay in Blythe is published as being present on 5 January instead of 7 January suggests some errors do exist.

The book contains four appendices, one of which is an informative summary of Christmas Bird Counts conducted at the Bill Williams Delta, Parker, and Martinez/Yuma, listing the birds to be found in winter, and their relative abundance at these

three locations at that time of the year. Another appendix graphically shows the abundance, seasonal status and habitat preference of all the birds known to occur along the Lower Colorado River, and is an excellent source of visual information to be used in conjunction with the species accounts. An extensive bibliography preceding the index includes most, if not all, major ornithological papers covering the birdlife along the Colorado River.

In summary I found the book to be well written, relatively error free, and full of useful information. It has much to offer those interested in the habitat requirements of those species regularly occurring along the Colorado River, and suggestions for those active in conservation. I consider it a must for any one interested in the status and distribution of the birds of Arizona, California, or Nevada, and a fine addition to any library on the birds of North America.



Lucy's Warbler *Sketch by Tim Manolis*

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Cover photo by © Jeff Foott of Jackson, Wyoming: Tufted Puffin *(Lunda cirrhata)*, S.E. Farallon Island, California, June 1977

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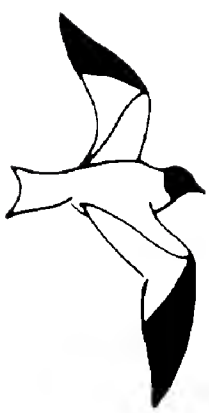

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WESTERN BIRDS

Volume 23, Number 2, 1992

ABUNDANCE AND CHRONOLOGY OF MIGRANT SHOREBIRDS IN IDAHO

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The timing and abundance of shorebirds migrating through Idaho are inadequately known. Prior studies have been limited to ancedotal observations and annotated checklists with an emphasis on northern Idaho (Larrison et al. 1967, Burleigh 1972). This study revises and improves our knowledge of migrating shorebirds in the state. It also provides quantitative data on fall shorebird migration from two sites along the northern edge of the Great Basin, an area in North America where shorebird movement is poorly known (Morrison and Myers 1987). We show here that many species are much more abundant in Idaho than recorded by Larrison et al. (1967) or Burleigh (1972). For a few species this is also true for the Intermountain West as a whole.

STUDY AREAS AND METHODS

We counted shorebirds at American Falls Reservoir (hereafter Res.) from late June or early July to October on at least a weekly basis from 1986 to 1989. American Falls Res. is formed by the damming of the Snake River at American Falls. It is about 35 km long and 10 km wide at its widest point, lies at an elevation of 1320 m, and covers parts of Power, Bannock, and Bingham counties in southeastern Idaho (Figure 1). The reservoir's water begins receding in early to mid-summer, exposing a large mudflat where the Snake River enters the reservoir. This mudflat expands from 1 to about 8 km wide and 2 to 15 km long depending on the amount of water withdrawn. The amount and location of mudflats sometimes changed dramatically from week to week and year to year. We always censused completely the section of mudflat north of the mouth of the Snake River, a consistently large mudflat once water withdrawal had begun, except for

some sections missed on a few counts in 1989. We counted shorebirds weekly in 1986 and 1987 along 1- to 2-km transects of several other habitats around the reservoir, including, bedrock, clay beach, boulders, sandy–pebbly beach, and small mudflats. The huge majority of individual shorebirds were concentrated on mudflats. We estimated that we covered about 40 to 80% of the best habitat (mudflats and muddy seeps) during our counts. We did not census the entire reservoir because of its large size and inaccessibility of some areas.

The total number of counts for each weekly period is given in Table 1. From all of these counts we figured the maximum, mean, and minimum of each species for each weekly period. The graphs we created from these figures thus do not reflect each year's passage of migration but rather the average and extremes during a given week over a 4-year period.

Lake Lowell is a reservoir in Canyon County in southwestern Idaho at an elevation of 757 m. It is about 15 km long and 5 km wide at its widest point (Figure 1). Large mudflats were exposed there by summer withdrawal of water, and the extent and location of these mudflats varied from week to week. We censused Lake Lowell weekly from mid-July until late September in 1989. Five transects covering a linear distance of 4600 m were covered each week, but the largest concentration of birds was usually at the extensive mudflat where the New York Canal enters the reservoir. Most or all of this mudflat was counted each visit. We felt we covered from 30 to 80% of the best habitat (mudflats) on each visit to this reservoir. We visited Lake Lowell sporadically in other years.

Table 1 Number of Shorebird Counts at American Falls Reservoir by Week

Week	1986	1987	1988	1989	Total
24–30 Jun	1	1	1	0	3
1–7 Jul	1	2	1	0	4
8–14 Jul	1	2	1	1	5
15–21 Jul	2	2	1	1	6
22–28 Jul	3	2	1	1	7
29 Jul–5 Aug	3	3	2	1	9
6–12 Aug	2	2	1	1	6
13–19 Aug	3	2	1	1	7
20–26 Aug	2	1	1	1	5
27 Aug–3 Sep	3	2	1	1	7
4–10 Sep	2	2	1	1	6
11–17 Sep	2	2	1	1	6
18–24 Sep	2	2	1	1	6
25 Sep–1 Oct	2	2	1	1	6
2–8 Oct	2	2	1	0	5
9–15 Oct	2	2	0	0	4
16–22 Oct	2	2	0	0	4
23–29 Oct	1	2	1	0	4
30 Oct–5 Nov	2	0	0	0	2

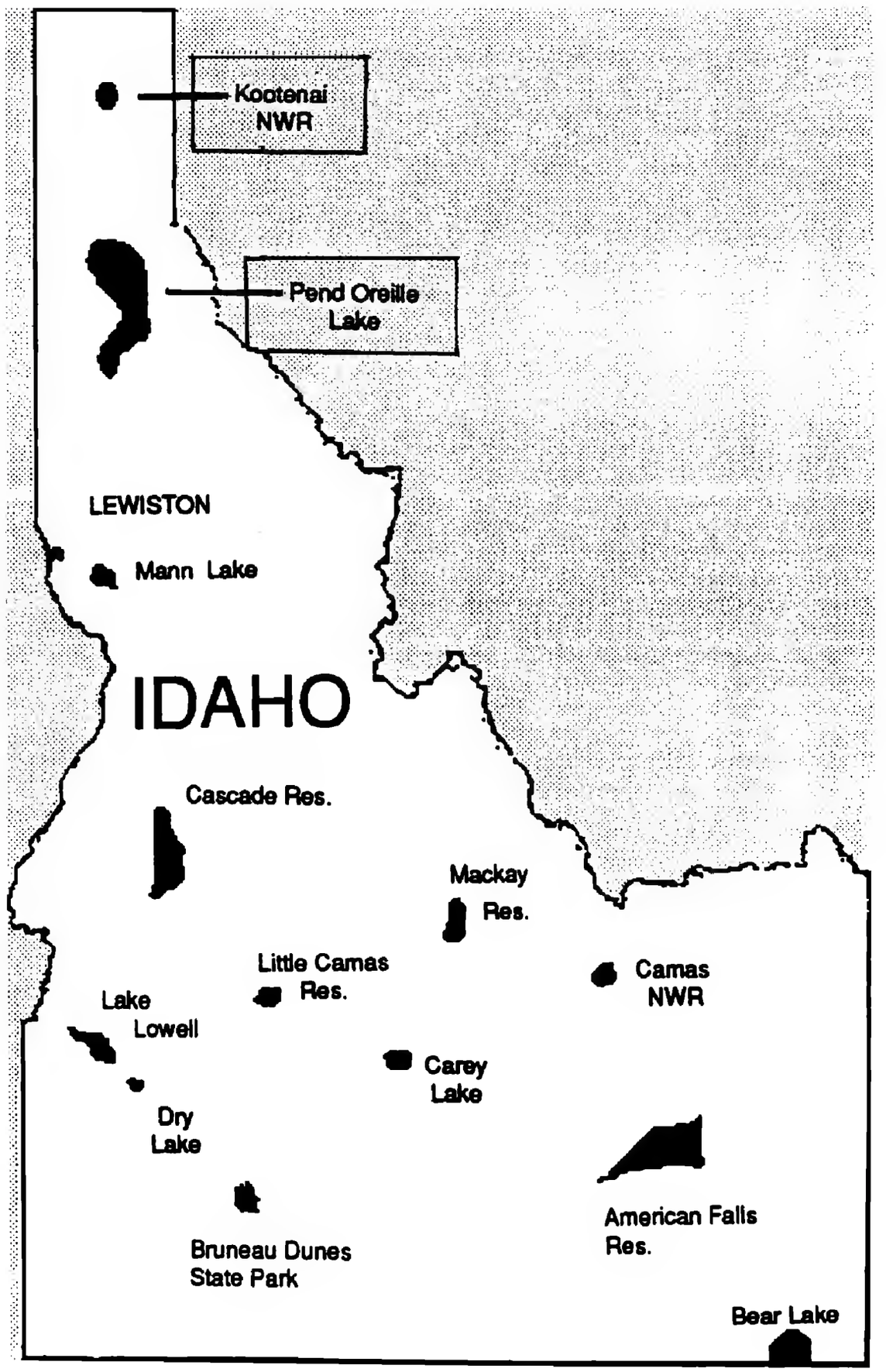

Figure 1. Localities mentioned frequently in the text.

All of Carey Lake, Blaine County, was censused six times in 1989 (Figure 1). A 2-km section of Lake Walcott, Snake River, Power Co., was censused nine times in 1989 from July into early September. The large mudflat deltas of Little Camas Res., Camas Co., and Mackay Res., Custer Co., were each censused two to four times in 1989. All of Dry Lake, Canyon Co., was censused three times in 1989.

Shorebirds were counted with binoculars and 25x spotting scopes. Birds were counted individually, unless they numbered in the thousands, and then they were counted by tens. Care was taken not to disturb birds, and complete counts were usually obtained of all species at each site. All individual shorebirds were identified to species, except that large numbers of small shorebirds were lumped as "peeps" on some counts in 1987 and 1988 at American Falls Res.

We have also used records from our own field notes and the recent literature to describe abundance and occurrence patterns further. Observations by the authors are cited DT and CT for Taylor and Trost, respectively. We used the most specific dates we had for individual records. Records from Idaho Fish and Game's Idaho Natural Heritage Program are cited with INHP. In the species accounts below we have omitted the Mountain Plover (*Charadrius montanus*), White-rumped Sandpiper (*Calidris fuscicollis*), Buff-breasted Sandpiper (*Tryngites subruficollis*), and Red Phalarope (*Phalaropus fulicaria*) because their status has not changed from that reported by Taylor and Trost (1987).

SPECIES ACCOUNTS

Black-bellied Plover (*Pluvialis squatarola*). This plover was formerly considered an uncommon fall migrant in Idaho with a maximum of nine recorded (Larrison et al. 1967, Burleigh 1972). These sources listed only two spring records. At American Falls Res. we sometimes observed a small mid-August peak and then a larger peak in late September or October (Figure 2). We counted the maxima of 125 on 25 September 1983 and 115 on 2 October 1988. At Lake Lowell only one bird was recorded in 1989, a year when mudflats were covered by rising water by mid-September. In contrast, 40 birds were there on 28 September 1990, when extensive mudflats were exposed, and one lingered until 20 November, the latest state record (DT). Other fall concentrations included 17 at Hubbard Res., Ada Co., on 3 November 1983 (*American Birds* [AB] 38:224–227), 10 at Rathdrum, Kootenai Co., in 1984 (AB 39:78–81), and 20 in 1978 and 27 on 12 October 1984 at Mann Lake, Nez Perce Co. (AB 33:196–199, 39:78–81). New spring records include the earliest state record of one at Minidoka National Wildlife Refuge (hereafter NWR) on 9 April 1964 (Wilbur 1976), two at Fort Boise Wildlife Management Area, Canyon Co., on 29 April 1978 (AB 32:1033-1036), one at Rupert, Minidoka Co., in 1981 (AB 35:843–846), one at Indian Creek Res., Ada Co., on 14 May 1989 (AB 43:511–513), and 18 at American Falls Res. in April 1987 (CT).

Lesser Golden-Plover (*Pluvialis dominica*). Burleigh (1972) and Larrison et al. (1967) considered this species a rare migrant, with no specific records for southern Idaho. Their only record of greater than seven was a "large flight" in September 1896 at what is now Coeur d'Alene (Merrill 1897). At American Falls Res. we recorded the state's earliest fall sighting on 30 July 1986, then a few individuals in August and infrequent flocks of 5 to 15 in September and October (Figure 3). Two birds lingered until 6 November 1986, the latest record for Idaho. At this same

reservoir we had higher counts of about 30 birds in the first two weeks of October in 1983 and 1985. Another flock of 26 was at Mann Lake on 7 October 1984 (AB 39:78–81). Four were at Lake Lowell on 17 October 1990 (DT). A third, and earliest, spring record is of one at Mann Lake on 22 and 24 April 1978 (AB 32:1033–1036). Both *P. d. dominica* and *P. d. fulva* have been collected in Idaho (Burleigh 1972), and there is evidence these forms are distinct species (Connors 1983).

Snowy Plover (*Charadrius alexandrinus*). By 1985 there were 12 spring and summer records of this plover in Idaho (Taylor and Trost 1987). At American Falls Res. two pairs were found from May through July in 1988 on extensive dried mudflats. They were suspected of nesting (showing broken-wing displays), which has not been documented for the state. Three birds were there on 3 May 1987 (AB 41:464–466). One was at Mud Lake, Jefferson Co., on 8 June 1986, and two were at Dry Lake on 22 May 1986 (AB 40:1229–1232).

Semipalmated Plover (*Charadrius semipalmatus*). This plover was considered a common to uncommon migrant in small numbers by Larrison et al. (1967) and Burleigh (1972), but they listed only one specific southern Idaho record, from Jerome Co. (Levy 1950). At American Falls Res. we often observed a peak in late July or early August and sometimes a smaller peak in late August or early September (Figure 4A). Lake Lowell showed a pattern similar to that at American Falls Res. in both

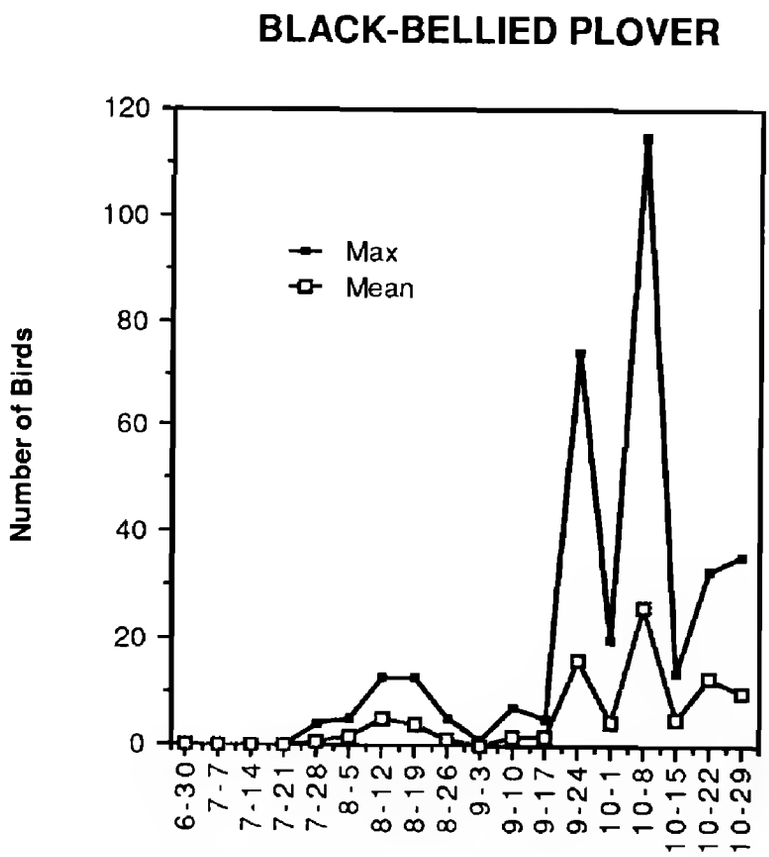

Figure 2. Abundance of the Black-bellied Plover at American Falls Reservoir during fall migration, 1986–1989. White squares, mean of all counts during the week starting six days before and including the specified date. Black squares, maximum counted during the week starting six days before and including the specified date. The minimum count each week was always zero.

timing and numbers of this plover (Figure 4B). In 1989, we recorded single birds on 26 August at Carey Lake and on 5 August at Dry Lake. Sites of recent fall records of one to eight birds in southern Idaho include Little Camas Res. (AB 38:224–227), Spangler Res., Payette Co. (AB 39:78–81), Salmon, Lemhi Co. (AB 37:202–204), and Weiser, Washington Co. Fifteen were at Kootenai NWR on 15 September 1986 (AB 41:118–121).

Sites of spring records of one to ten birds in southern Idaho include Rupert, Minidoka Co. (AB 30:865–869), Fort Boise WMA, Canyon Co. (AB 32:1033–1036), Grandview, Owyhee Co. (AB 32:1033–1036), American Falls Res. (INHP), Oxford Slough, Franklin Co. (AB 40:498–502), Black's Creek Res., Ada Co. (AB 36:998–1000), and Emmett, Gem Co (AB 43:511–513). The earliest spring record was one on 26 April 1985 at the Idaho National Engineering Laboratory, Butte Co. (AB 39:327–329).

Killdeer (*Charadrius vociferus*). This shorebird, widespread and resident in Idaho (Larrison et al. 1967, Burleigh 1972), was a migrant at all lakes and reservoirs we visited in 1989 except high alpine lakes. Migrating Killdeers at American Falls Res. occurred in the mid hundreds to over 1000 from late July to late October (Figure 5A). A maximum of 1345 was counted here on 4 September 1987. Killdeers at Lake Lowell peaked in 1989 at 619 on 16 August (Figure 5B); 1200 were present there on 11 October 1990. We had 164 birds at Carey Lake on 27 July 1989.

American Oystercatcher (*Haematopus palliatus*). The only record for the state is of a bird carefully observed and described near Fruitland, Payette Co., on 18 April 1981 (Stephens and Stephens 1987).

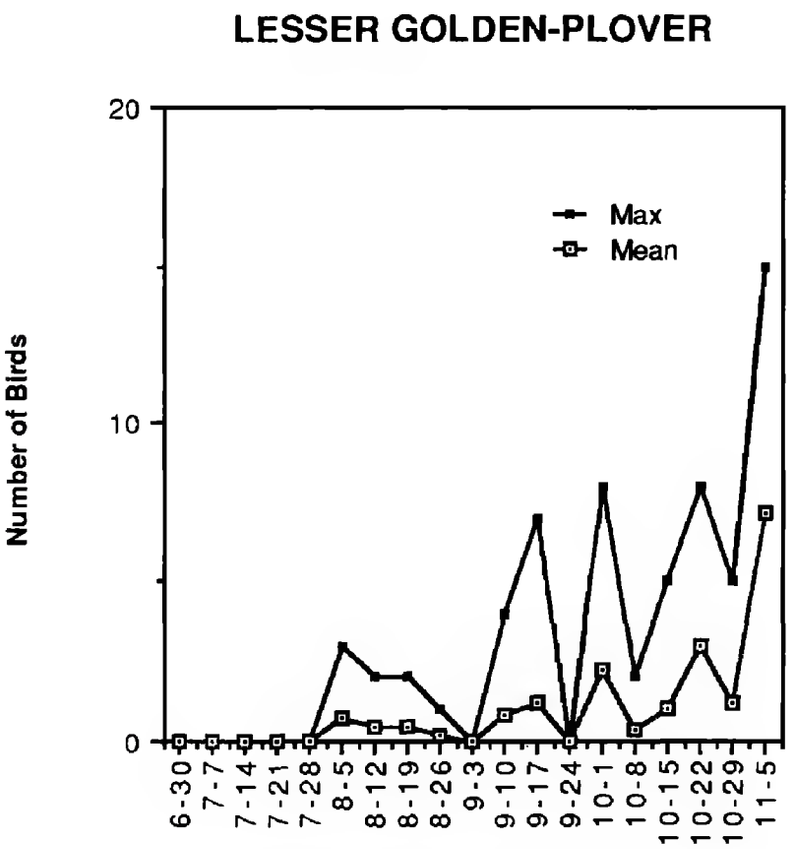

Figure 3. Abundance of the Lesser Golden-Plover at American Falls Reservoir during fall migration, 1986–1989. See Figure 2 for details.

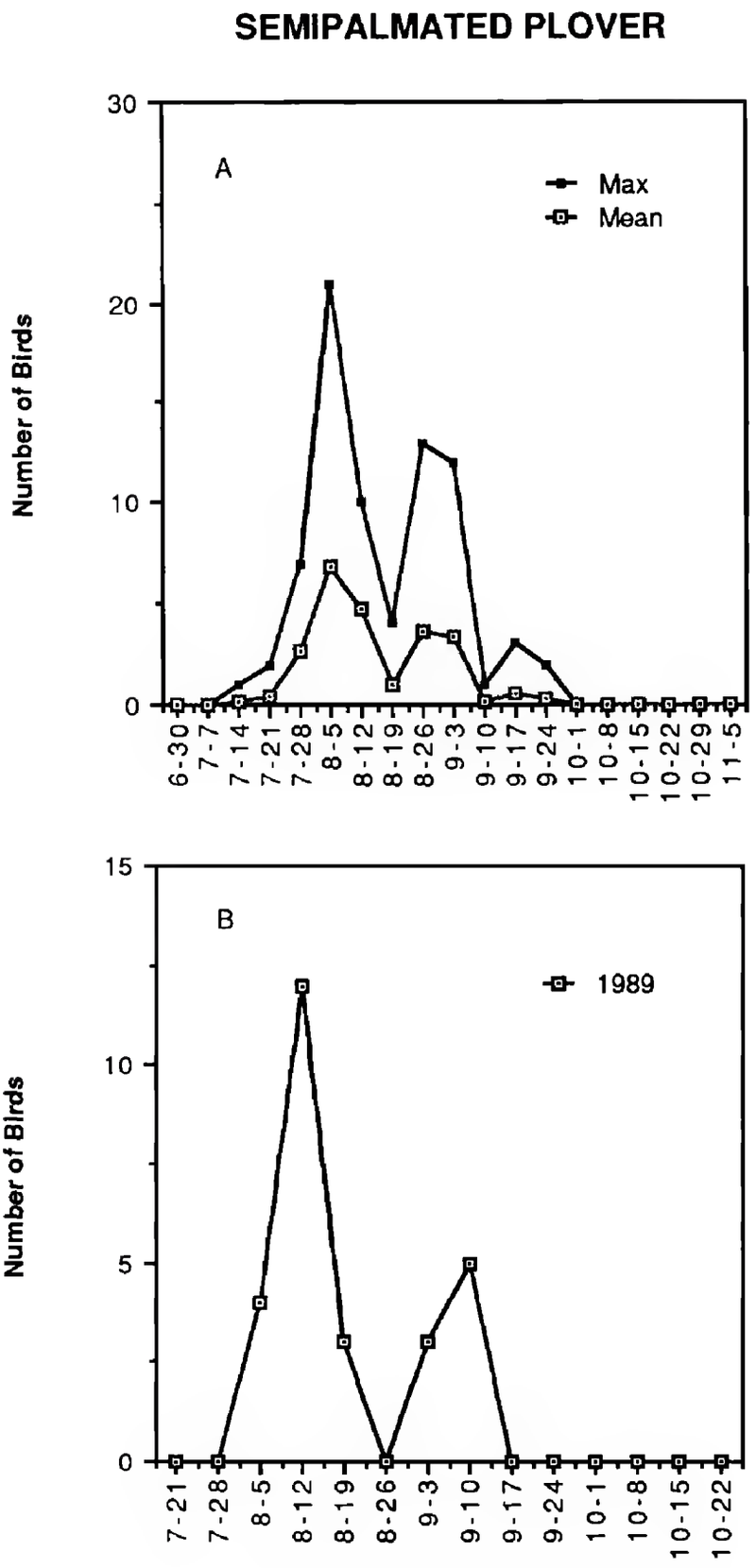

Figure 4. A, abundance of the Semipalmated Plover at American Falls Reservoir during fall migration, 1986–1989. See Figure 2 for details. B, abundance of the Semipalmated Plover at Lake Lowell during fall migration, 1989.

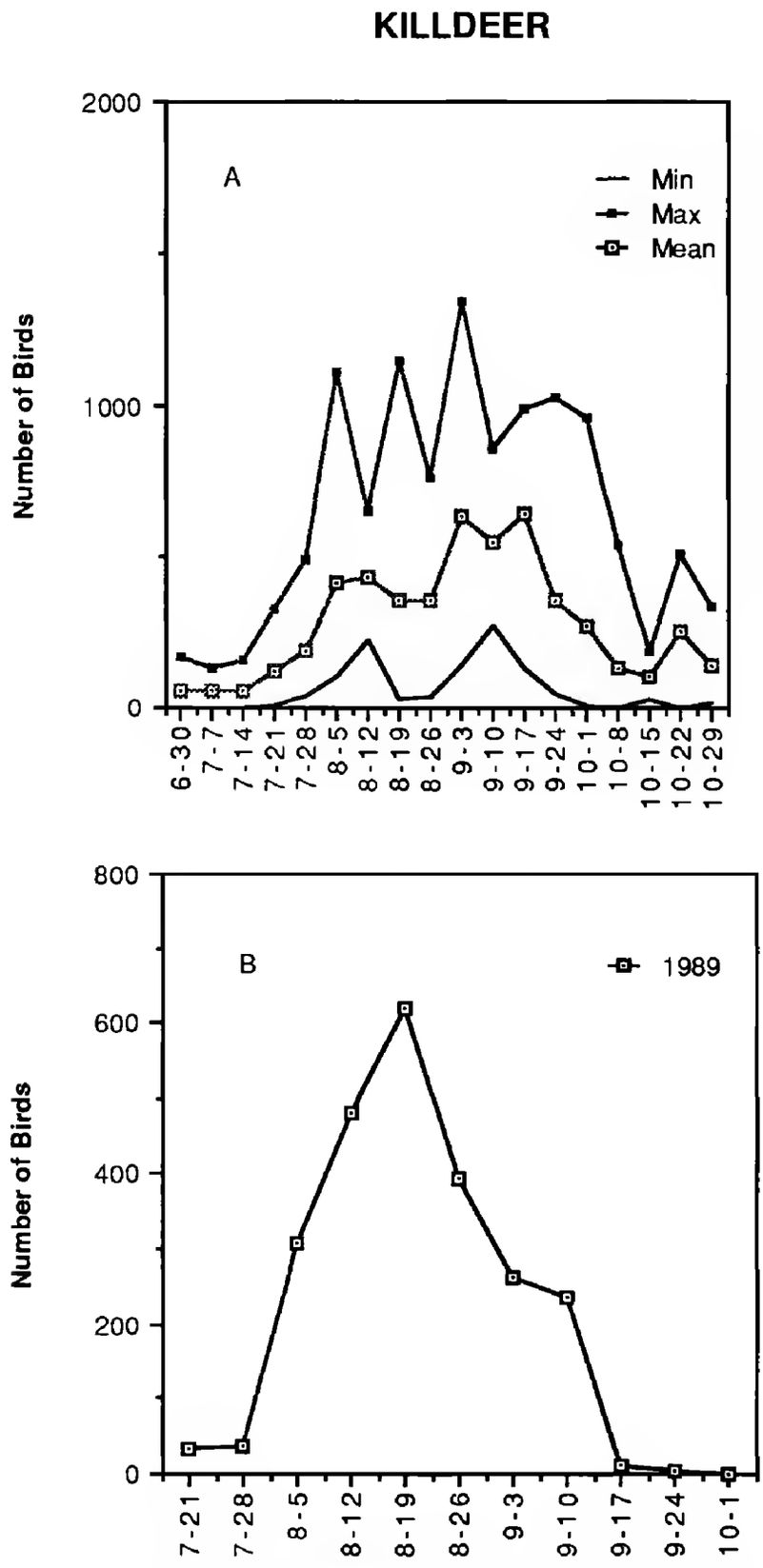

Figure 5. A, abundance of the Killdeer at American Falls Reservoir during fall migration, 1986–1989. White squares, mean of all counts during the week starting six days before and including the specified date. Black squares, maximum counted during the week starting six days before and including the specified date. Unmarked points, minimum counted during the week starting six days before and including the specified date. B, abundance of the Killdeer at Lake Lowell during fall migration, 1989.

Black-necked Stilt (*Himantopus mexicanus*). Both Burleigh (1972) and Larrison et al. (1967) considered this stilt to be a very local and uncommon breeder occurring only in the southern part of the state. At American Falls Res. it was a common migrant in July and August, with nearly all birds gone by the beginning of September (Figure 6). We found from 6 to 15 birds in 1989 at Lake Lowell, Bruneau Sand Dunes Lake, and Dry Lake. There were 24 at Mud Lake, Jefferson Co., on 24 July 1981 (INHP). Recent northern Idaho records include 20 at Kootenai NWR on 19 April 1987 (AB 41:464–466), one at Mann Lake in spring 1984 (AB 38:936–939), and six near Lewiston on 26 April 1987 (AB 41:464-466). Six stilts seen at Rupert, Minidoka Co., on 16 April 1975 constitute the earliest spring record.

American Avocet (*Recurvirostra americana*). Burleigh (1972) stated this species was a local resident, especially in the southern part of the state, with a maximum of 50 seen near Hazelton, Jerome Co. (Levy 1950). We often found over 1000 avocets at American Falls Res. from early July through September (Figure 7A), with a maximum of 2592 on 18 August 1987. Avocets lingered into mid-November at American Falls Res. Lake Lowell had much smaller numbers of avocets in 1989 (Figure 7B). Between 11 and 43 avocets were found at Bruneau Sand Dunes State Park, Carey Lake, and Dry Lake between 17 July and 27 August 1989. An unusual record was of 30 flying around Lake Merriam, elevation 2720 m, Custer Co., on 28 July 1971 (AB 25:882–888). Thirty were at Mud Lake, Jefferson Co., on 12 July 1981 (INHP).

Greater Yellowlegs (*Tringa melanoleuca*). The Greater Yellowlegs has been considered a regular migrant throughout the state in spring and fall with a maximum of

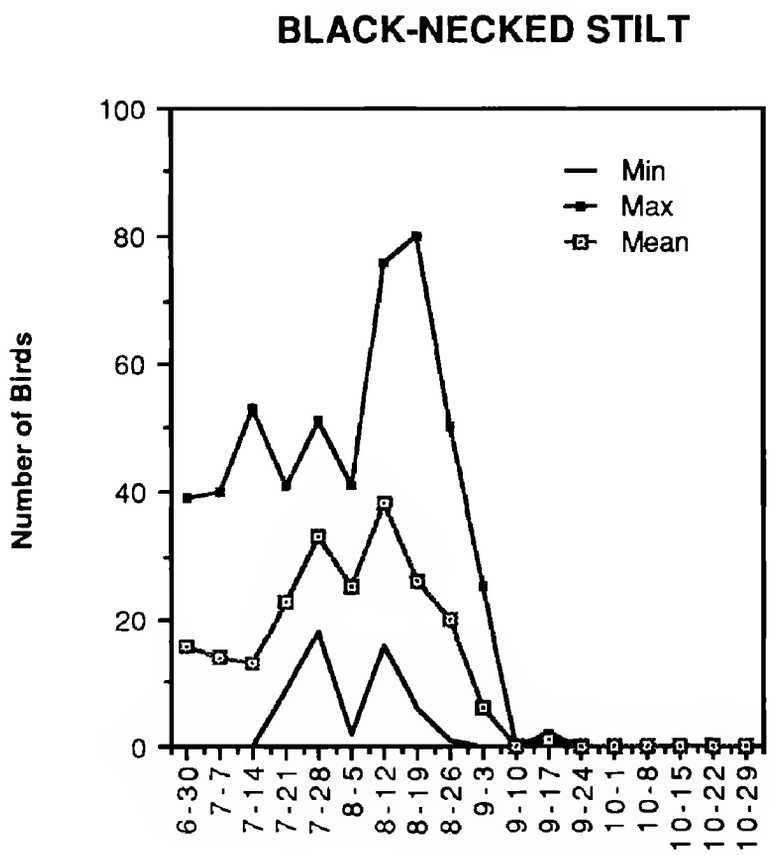

Figure 6. Abundance of the Black-necked Stilt at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details.

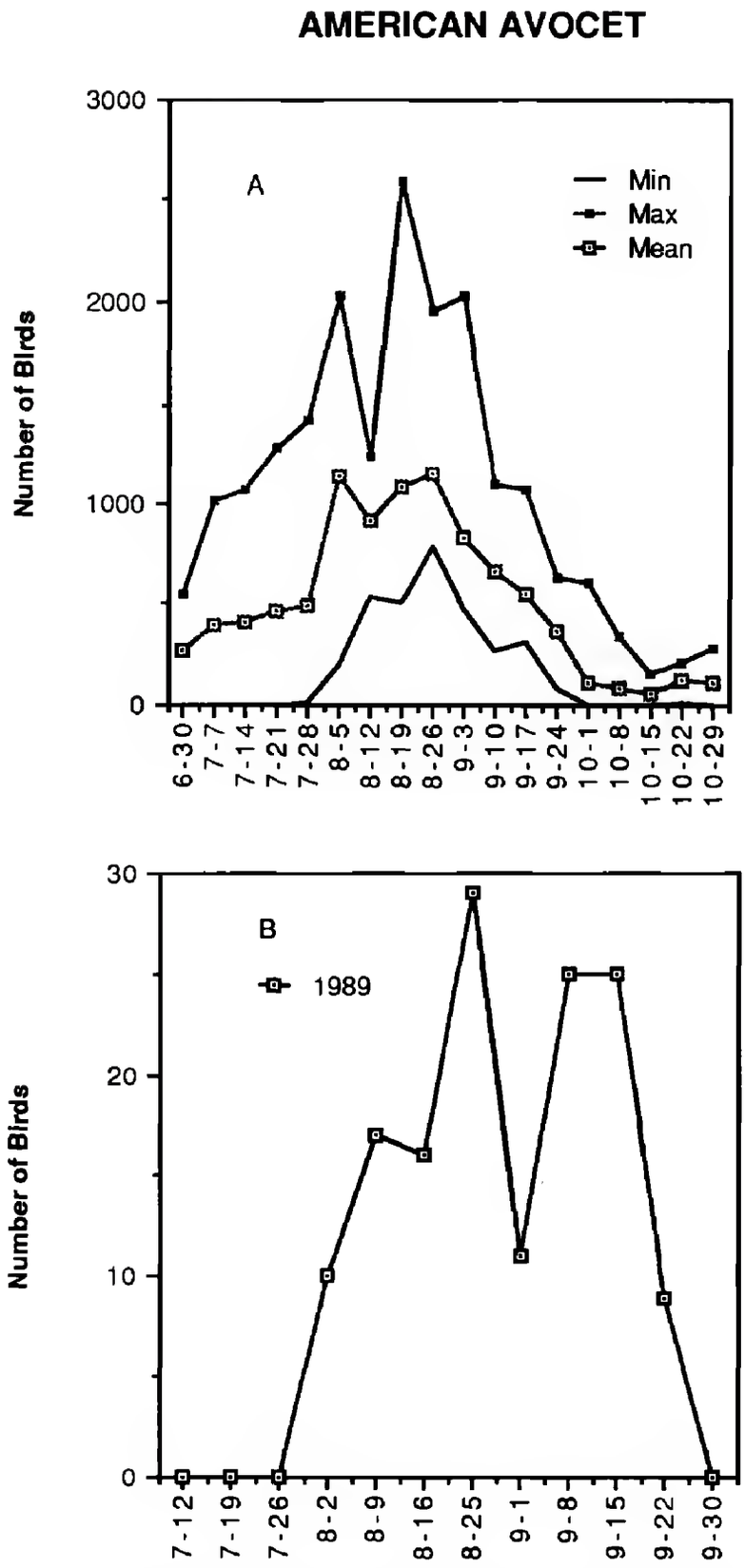

Figure 7. A, abundance of the American Avocet at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details. B, abundance of the American Avocet at Lake Lowell during fall migration, 1989.

25 found at St. Maries, Benewah Co., on 4 August 1938 (Larrison et al. 1967, Burleigh 1972). Numbers at American Falls Res. averaged about ten from mid-July to mid-September, with a maximum of 95 on 4 September 1987 (Figure 8A). We found small numbers in 1989 at numerous lakes and reservoirs in southern Idaho, with a peak of 14 at Lake Lowell on 25 August (Figure 8B). There have been January and December records from near Lewiston (Burleigh 1972, AB 36:313–315, 40:304-306, 41:305-307, 43:342-345), Lake Lowell (AB 31:352–355), and American Falls Res. (AB 31:352–355).

Lesser Yellowlegs (*Tringa flavipes*). Larrison et al. (1967) and Burleigh (1972) stated that this species is a fall migrant in small numbers in Idaho with a maximum of 12 recorded. At American Falls Res. hundreds of individuals passed through with usually a peak in September (Figure 9A) and one lingering to 21 October 1987, the state's latest date. Our maximum count was 801 on 4 September 1987. In 1989 this yellowlegs occurred in small numbers at several lakes and reservoirs in southern Idaho, peaking at 22 on 30 August at Lake Lowell (Figure 9B) and 26 on 23 August at Lake Walcott. Burleigh's (1972) six spring records were all from northern Idaho, but Wilbur (1976) observed 30 birds at Acequia, Minidoka Co., on 30 April 1963. One was at Indian Creek Res., Elmore Co., on 5 May 1990 (DT), another was at American Falls Res. the last week of April 1982 (DT, CT), one was at Mann Lake on 17 April, year not reported (Weber and Larrison 1977), and eight were at Black Lake, Kootenai Co., on 25 April 1982 (AB 36:875–878).

Solitary Sandpiper (*Tringa solitaria*). This sandpiper has been a regular spring and fall migrant throughout the state as individuals or in groups of less than ten (Larrison et al. 1967, Burleigh 1972). We found this species singly or in small groups each year at American Falls Res. (Figure 10), with the state's latest on 16 September 1987. A few single birds also occurred at Lake Lowell and Carey Lake in 1989. This is one of the few shorebird species consistently found by Hand (1932) in several years observation at subalpine Fish Lake, Idaho Co.

Willet (*Catoptrophorus semipalmatus*). The Willet is a common summer resident in southern Idaho (Larrison et al. 1967, Burleigh 1972). At American Falls Res. Willets occurred mostly in July and August, but with a maximum of 110 on 24 June 1988 (Figure 11). In 1989 we recorded only one or two Willets at various other lakes or reservoirs, except for 13 at Mackay Res. on 15 July.

Spotted Sandpiper (*Actitis macularia*). The Spotted Sandpiper is a widespread summer resident along lakes and rivers throughout the state (Larrison et al. 1967, Burleigh 1972). We often found this species in the low tens until late September at American Falls Res. (Figure 12). We found it in numbers of less than ten at a wide variety of other lakes and reservoirs, including subalpine lakes, in the summer of 1989. In recent years there have been some December and January sightings at the Malad River mouth, Gooding Co. (AB 32:298–300), American Falls Res. (DT), the Lake Lowell area (AB 30:742–745), and Salmon, Lemhi Co. (AB 30:742–745, 31:352–355).

Upland Sandpiper (*Bartramia longicauda*). This sandpiper is a very local breeder in Idaho (Larrison et al. 1967, Burleigh 1972). We did not find any on our shorebird surveys. One was at Robinson Lake, Latah Co., on 30 April 1977 (Weber and Larrison 1977).

Whimbrel (*Numenius phaeopus*). Until 1986 there were only two records for Idaho (Redmond 1982, Taylor and Trost 1987). At American Falls Res. we found two to three Whimbrels from 2 August to 23 September 1987 and one during the first two weeks of July 1988. Two were found here on 18 August 1990 (D. Burrup pers. comm.).

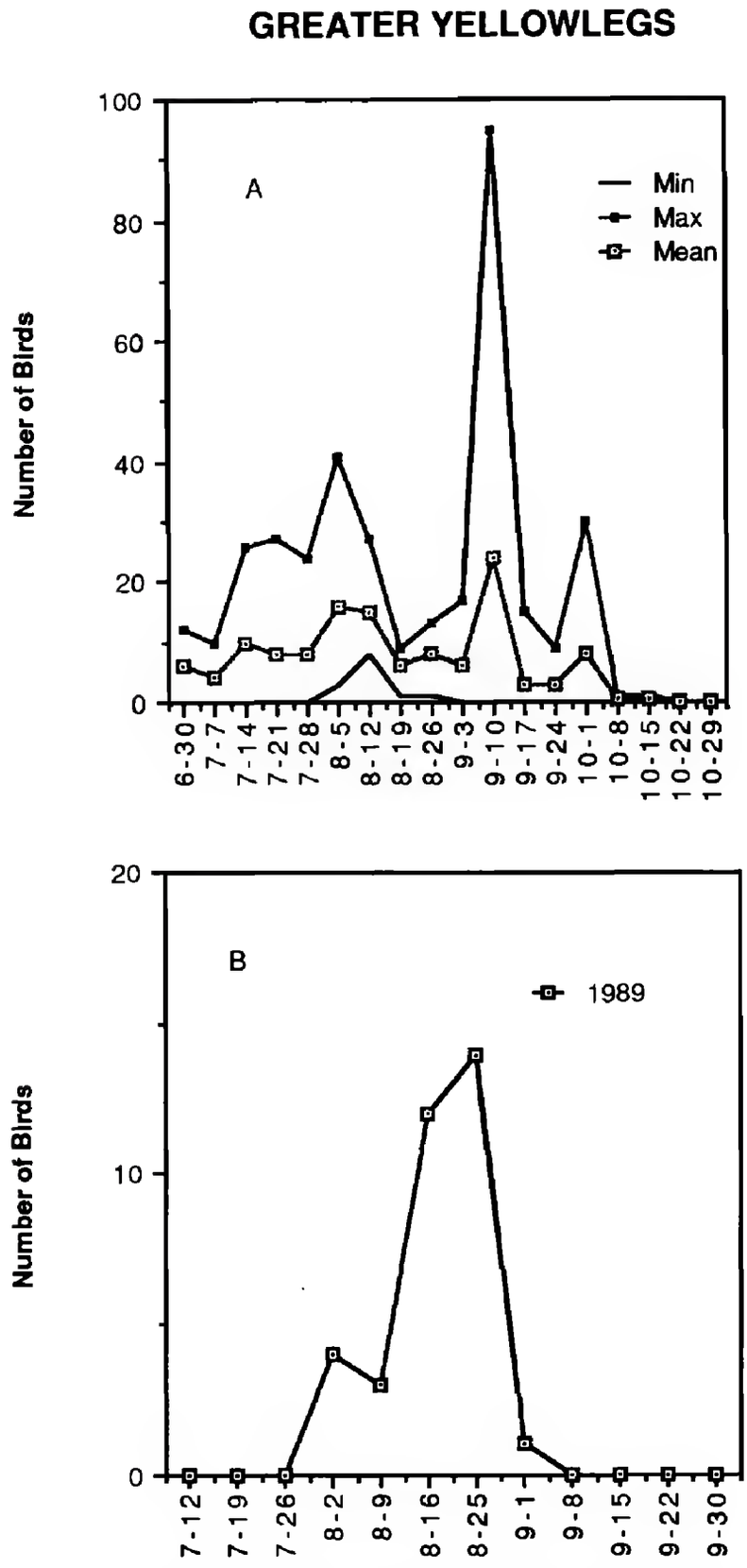

Figure 8. A, abundance of the Greater Yellowlegs at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details. B, abundance of the Greater Yellowlegs at Lake Lowell during fall migration, 1989.

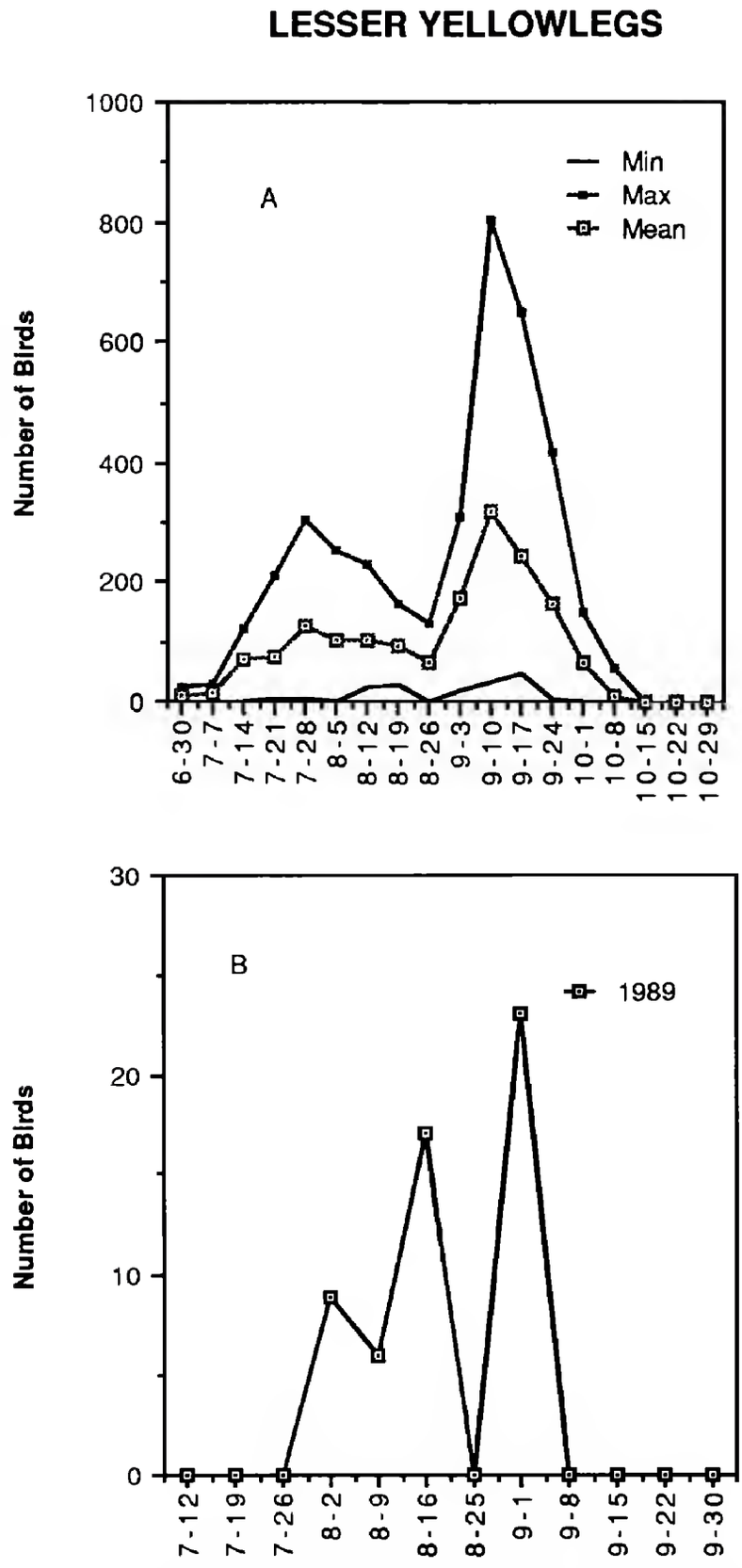

Figure 9. A, abundance of the Lesser Yellowlegs at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details. B, abundance of the Lesser Yellowlegs at Lake Lowell during fall migration, 1989.

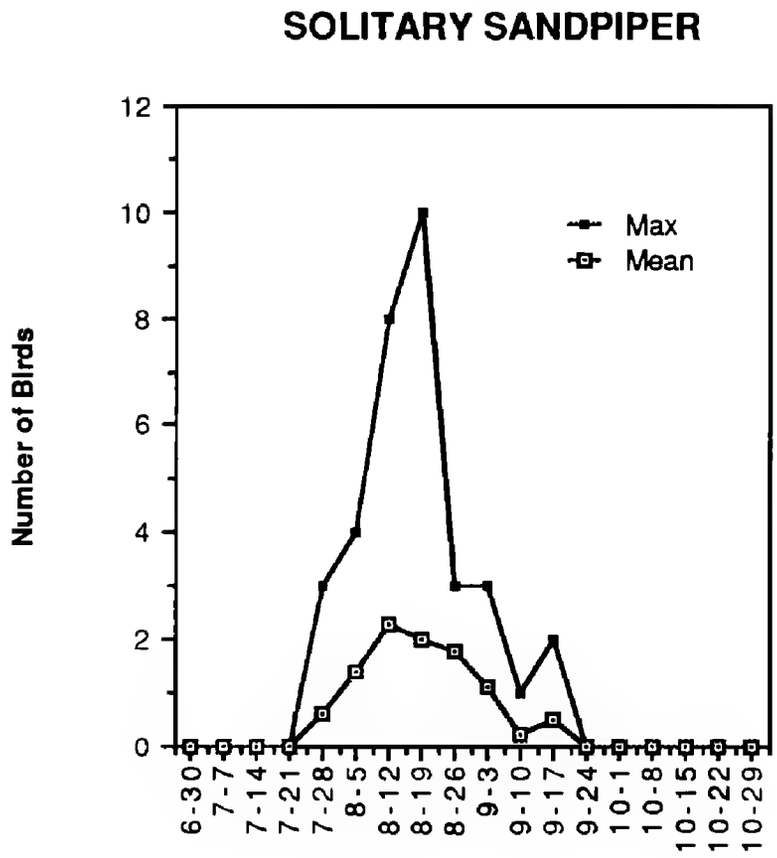

Figure 10. Abundance of the Solitary Sandpiper at American Falls Reservoir during fall migration, 1986–1989. See Figure 2 for details.

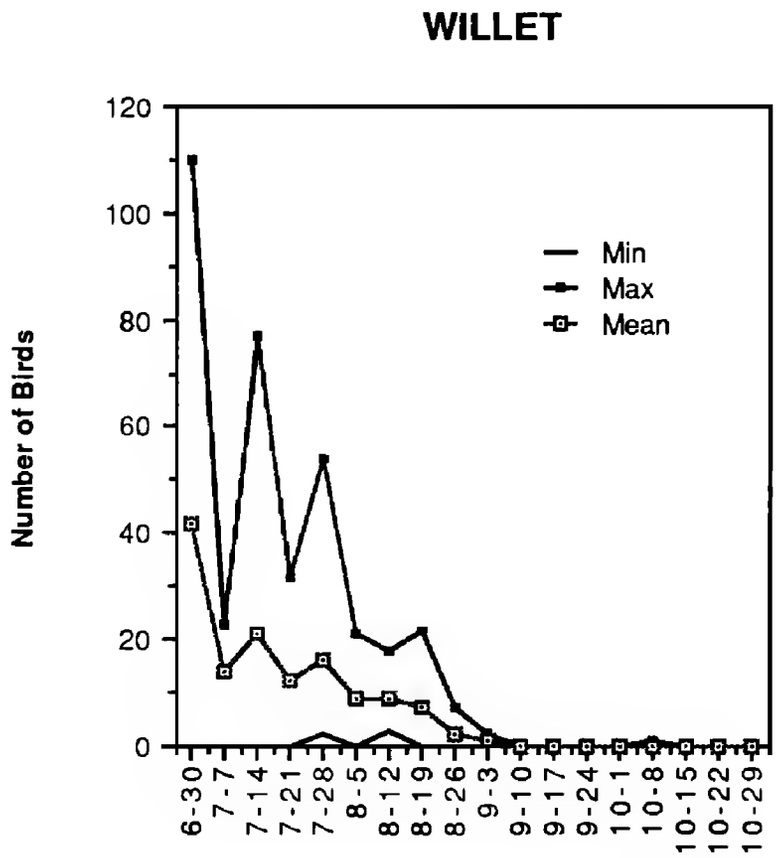

Figure 11. Abundance of the Willet at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details.

Long-billed Curlew (*Numenius americanus*). This curlew has been a fairly common breeder in Idaho (Larrison et al. 1967, Burleigh 1972). At American Falls Res. it was a rare migrant, with only a few individuals each summer in July and August, except for 14 on 19 July 1989. We saw only a few of these curlews at other lakes and reservoirs in 1989, so apparently this grassland-breeding species rarely uses reservoirs and lakes in southern Idaho during migration.

Hudsonian Godwit (*Limosa haemastica*). A report from Minidoka Co. on 7 July 1919 (Davis 1935) was the only state record through 1985 (Taylor and Trost 1987). The second state record was of two birds seen by CT and two other observers at American Falls Res. on 25 August 1990.

Marbled Godwit (*Limosa fedoa*). This godwit has been considered an uncommon migrant in the state, with large flocks very rarely seen (Larrison et al. 1967, Burleigh 1972). At American Falls Res., this species passed through mostly in July and August, with a peak of 628 on 15 July 1988 (Figure 13). The only godwits we found away from American Falls Res. in 1989 were two to five at Lake Walcott and Carey Lake. Other important fall records are of 30 birds at Bear River NWR on 25 June 1976 (AB 30:978–982) and 300 at American Falls Res. on 10 August 1976 (AB 31:199–203), with possibly another "2000 to 3000" there on 27 July 1973 (AB 27:897–902). Important spring records are the state's earliest of 70 near Salmon, Custer Co., on 24 April 1988 (AB 42:464–466), 450 at Lake Lowell the last two weeks of May 1963 (AFN 17:422–423), 25 at C. J. Strike Res., Owyhee Co., on 27 April 1980 (AB 34:797–800), and 30 at Montour WMA, Gem Co., on 25 April 1980 (AB 34:797–800).

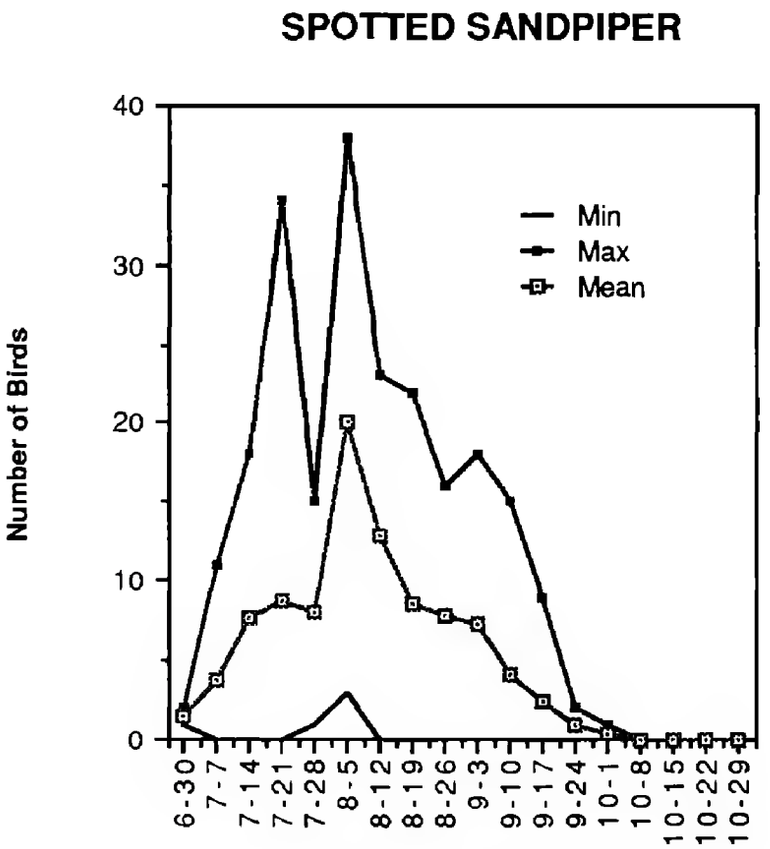

Figure 12. Abundance of the Spotted Sandpiper at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details.

Ruddy Turnstone (*Arenaria interpres*). Through 1985 there were only five Idaho records, including one from American Falls Res. (Taylor and Trost 1987). We found single birds on 16 May and 27 July 1987 at American Falls Res. Another was photographed on 11 May 1986 at Bear River NWR (AB 40:498–502), and two were at Blackfoot Res., Caribou Co., on 16 August 1988 (AB 43:136–139).

Red Knot (*Calidris canutus*). There were eight records of this knot in Idaho by 1986, including two from American Falls Res. (Taylor and Trost 1987). We saw one Knot on 1 August and two more on 19 August 1986, one on 12 July 1987, and one was at this reservoir during early August 1988 (AB 43:136–139). All records fall between 12 July and 19 September.

Sanderling (*Calidris alba*). Sanderlings have been considered uncommon migrants, with a maximum of three recorded, only two southern Idaho records, and two spring sightings (Larrison et al. 1967, Burleigh 1972). At American Falls Res. we found only a few Sanderlings annually except in 1986, when up to 23 occurred on 18 September, 25 occurred on 23 October (Figure 14), and one stayed until 13 November, the latest date for Idaho. We counted 40 during the second week of September 1983 and 18 on 25 August 1990 at this reservoir. Other notable fall records include eight birds on 17 September 1988 at Lewiston (AB 43:136–139), three on 13 September 1989 at Lake Lowell (DT), and one on 16 September 1984 at the Snake River near the mouth of the Bruneau River, Owyhee Co. (AB 39:78–81). Southern Idaho records in spring include one each at Grandview Ponds, Owyhee Co., on 22 May 1978 (AB 32:1033–1036), and at Mountain Home Res., Elmore Co., on 9 May 1984 (AB 38:936–939). Four were at Mann Lake on 5 May 1984 (AB 38:936–939).

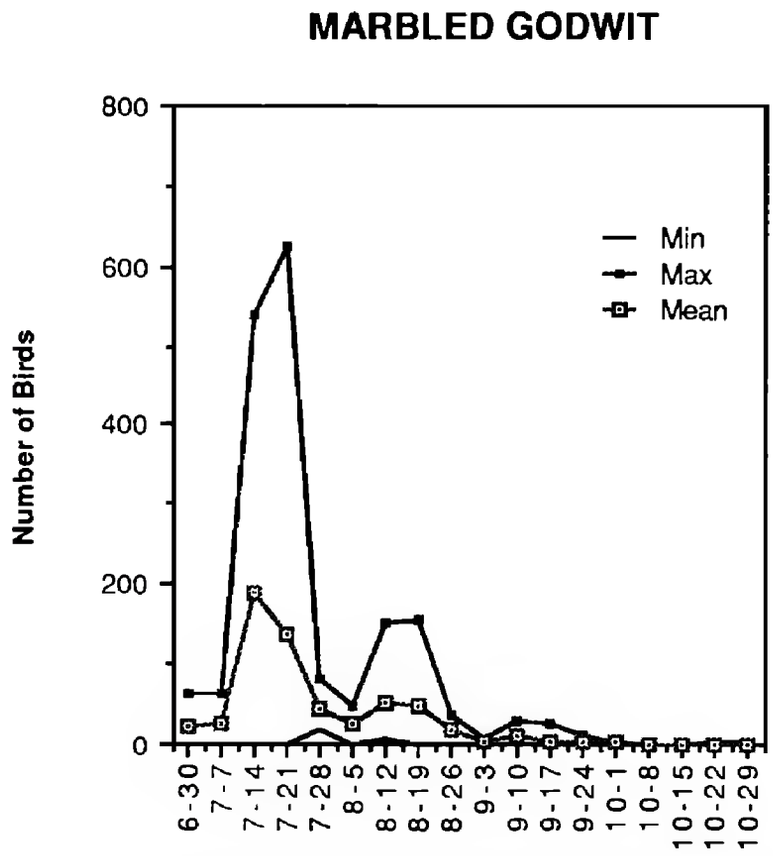

Figure 13. Abundance of the Marbled Godwit at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details.

Semipalmated Sandpiper (*Calidris pusilla*). Burleigh (1972) considered this species an uncommon migrant in northern Idaho with a maximum of six, and he collected 29 specimens; the only southern Idaho record was of one at Camas NWR, Jefferson Co. (Oring 1962). At American Falls Res. in 1986 numbers built to a peak of 149 on 25 August, with individuals trickling through until 16 October, the latest state record (Figure 15A). In other years our peak individual counts were of 73 on 1 September 1987, 15 on 8 July 1988, and 2 on 12 July 1989—years we did not consistently scrutinize "peep" flocks. There was a report of a "few hundred" here 15–25 July 1973 (AB 27:897–907). High counts at Lake Lowell in 1989 were 13 on 1 and 8 September (Figure 15B). We observed one to two birds there in 1986, 1987, and 1990, and 12 occurred there on 9 September 1979 (AB 34:182–184). We found four birds at Carey Lake and one at Lake Walcott in 1989. A count of nine birds on 3 May 1981 at Indian Creek Res., Ada Co. (AB 35:843-846), is the second Idaho spring record.

Western Sandpiper (*Calidris mauri*). This common migrant in Idaho (Larrison et al. 1967, Burleigh 1972) was the most abundant shorebird at American Falls Res. and Lake Lowell (Figure 16). Adults predominated in July or early August, juvenile birds after mid-August. Individuals lingered until 30 October in 1986. American Falls Res. had a minimum of 5000 Western Sandpipers stopping from 1986 to 1988, with perhaps 15,000 in 1987 (Figure 16B). The "15,000 to 20,000 Baird's Sandpipers" reported in July 1973 from there (AB 27:897–903) we suspect were this species. Fewer Western Sandpipers occurred in 1989, with a peak of about 1100 in July and late August. At Lake Lowell numbers peaked at about 5500 birds in 1989 (Figure 16), and at least 10,500 were there the next year on 25 August when

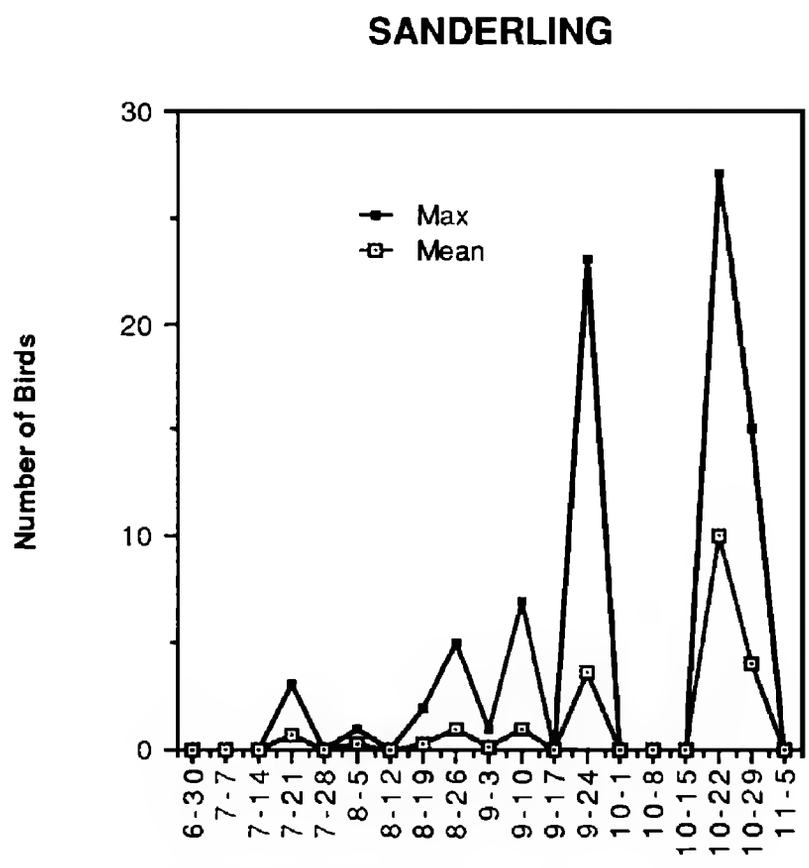

Figure 14. Abundance of the Sanderling at American Falls Reservoir during fall migration, 1986–1989. See Figure 2 for details.

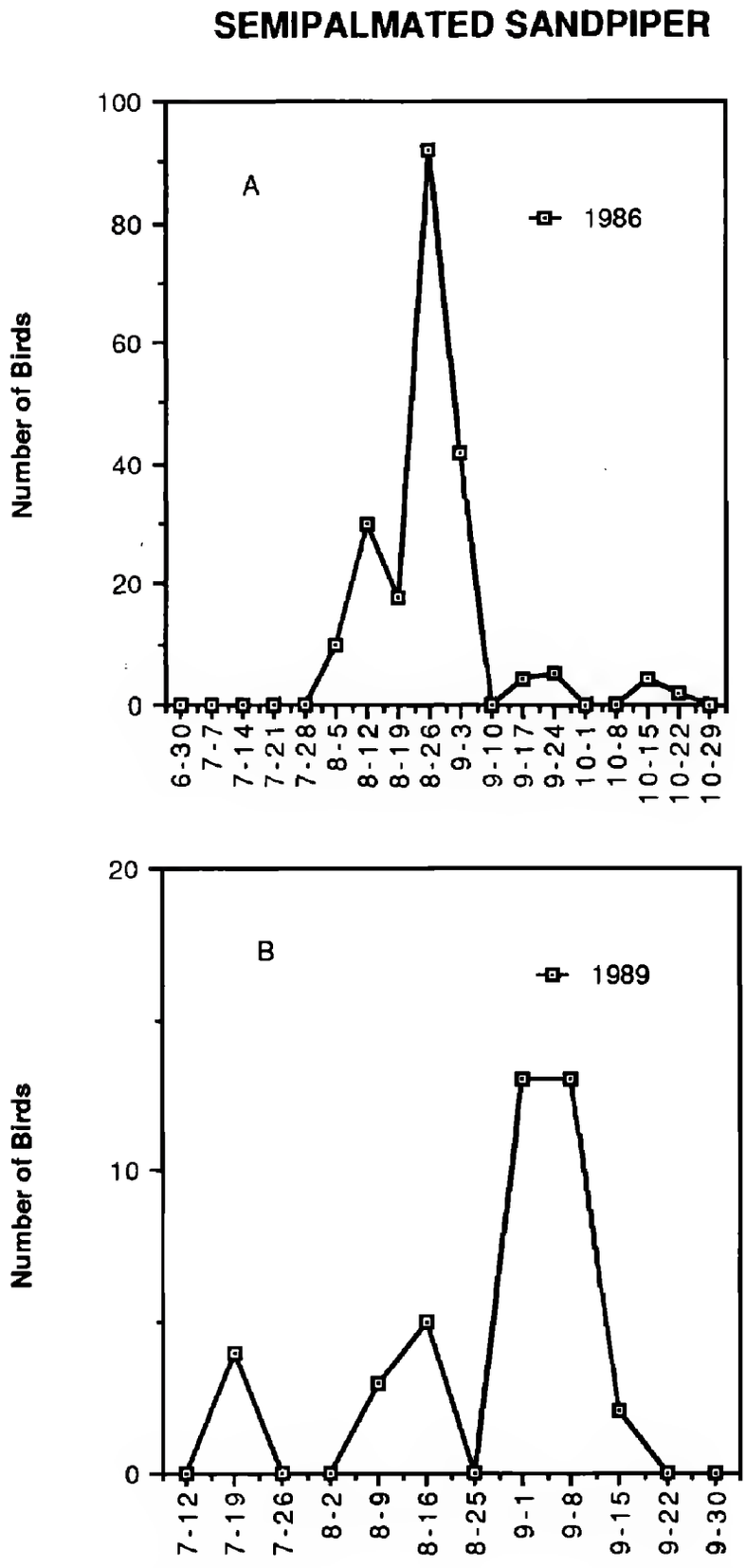

Figure 15. A, abundance of the Semipalmated Sandpiper at American Falls Reservoir during fall migration, 1986. Some points are the average of two counts starting six days before and including the specified date. B, abundance of the Semipalmated Sandpiper at Lake Lowell during fall migration, 1989.

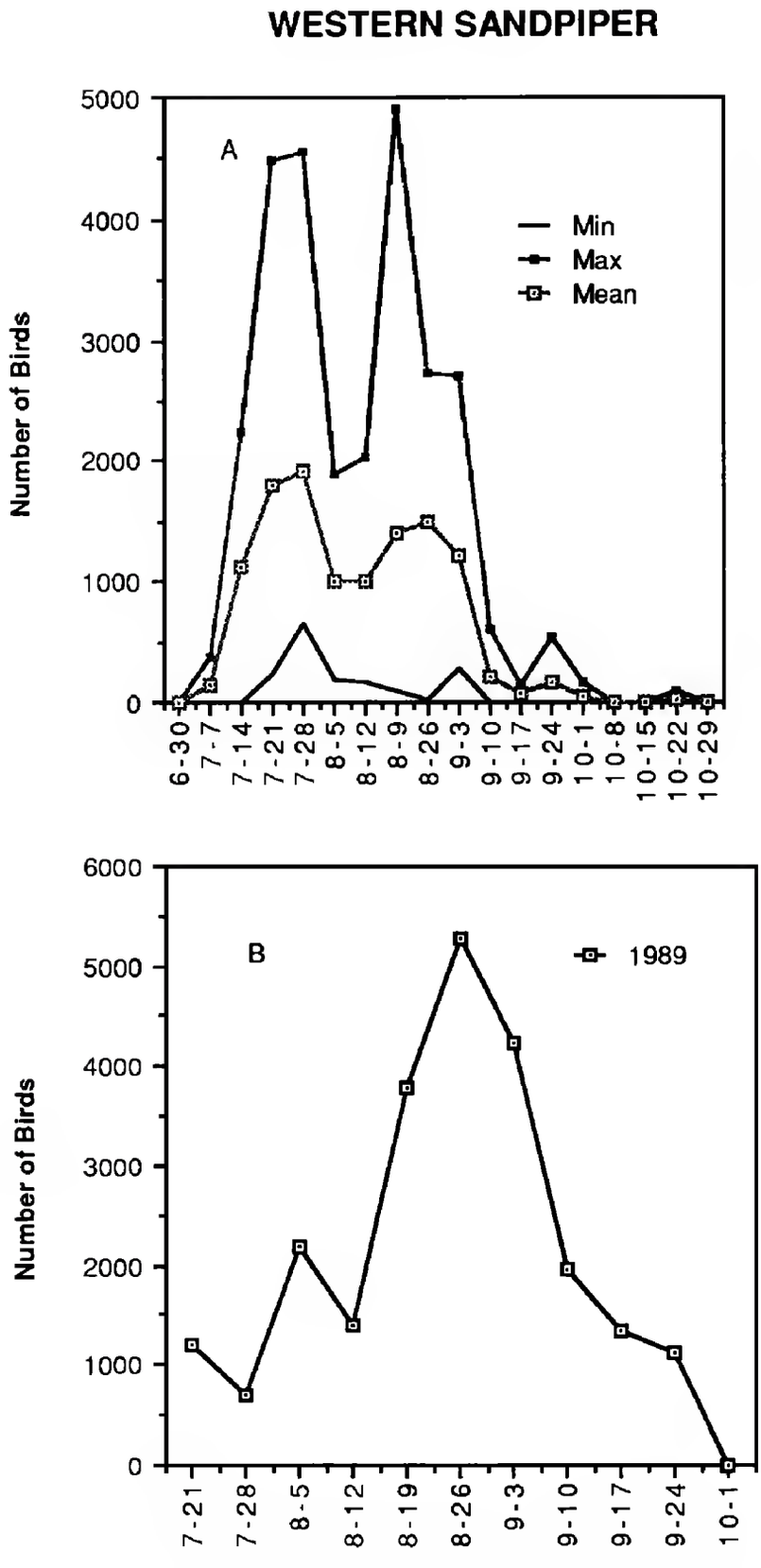

Figure 16. A, abundance of the Western Sandpiper at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details. B, abundance of the Western Sandpiper at Lake Lowell during fall migration, 1989.

extremely low water levels exposed extensive mudflats. In 1989 flocks in the low hundreds were at Mackay Res., Carey Lake, and Little Camas Res. There is a single winter record of one at Eagle Rock, Snake River, Power Co., from 14 to 16 January 1989 (CT). Burleigh's (1972) only spring record was of one bird at Potlatch, Latah Co., on 18 May 1954, but Larrison et al. (1967) stated the species occurred in mid May. A single bird was at Dry Lake on 10 May 1990 (DT), and 20 were at American Falls Res. on 30 April 1982 (DT, CT).

Least Sandpiper (*Calidris minutilla*). This sandpiper has been considered a fairly common migrant in Idaho during spring and fall with a maximum of 20 recorded (Larrison et al. 1967, Burleigh 1972). At American Falls Res. in 1986 peak numbers were 27 on 1 August and 28 on 16 August (Figure 17). The next three years we found small numbers of this sandpiper from late July to early October with high counts of 46 on 4 September 1987 and 54 on 30 September 1989. At Lake Lowell we counted two to four most weeks from mid-July to mid-September 1989, except for 35 on 16 August; one to six were found at Carey Lake, Mackay Res., and Lake Walcott. The largest flock known in Idaho was 107 at Lake Lowell on 20 November 1990, and up to 30 birds lingered there until 12 December. One was at Eagle Rock, Snake River, Power Co., on 14 and 16 January 1989 (AB 43:342–345). About 20 of these sandpipers were at American Falls Res. on 30 April 1982 (DT, CT). Hand (1932) found one at subalpine Fish Lake, Idaho Co.

Baird's Sandpiper (*Calidris bairdii*). Larrison et al. (1967) and Burleigh (1972) listed this species as a migrant in small numbers, although Oring (1962) found it "abundant" in fall at Camas NWR, Jefferson Co. At American Falls Res. Baird's Sandpipers occurred from mid-July to 6 November 1986, the latest state record,

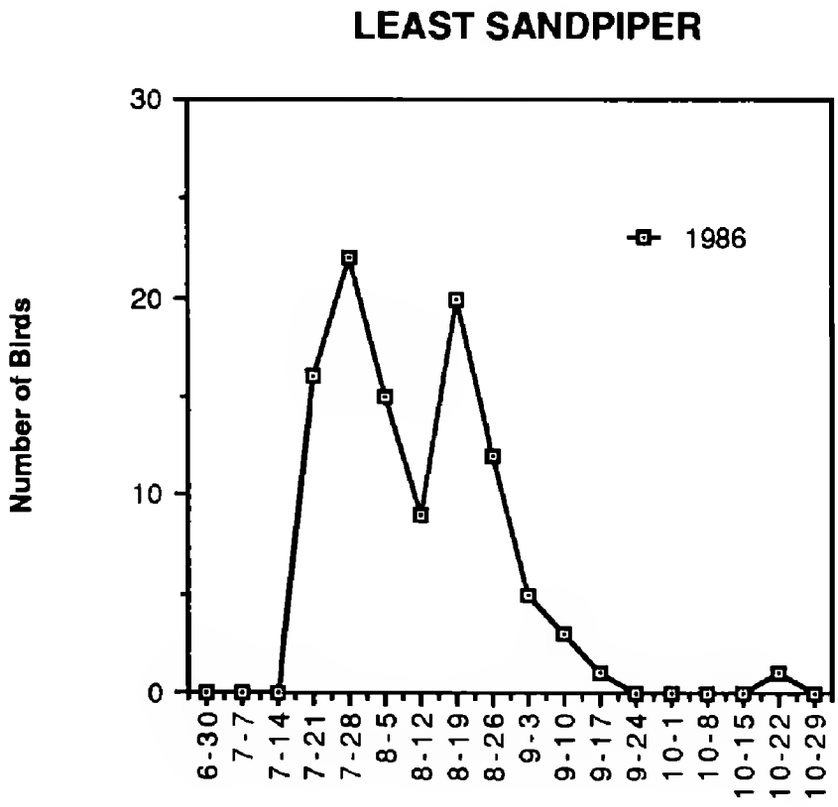

Figure 17. Abundance of the Least Sandpiper at American Falls Reservoir during fall migration, 1986. See Figure 15A for details.

with a high count of 1236 birds on 18 August 1987 (Figure 18A). The "15,000 to 20,000 Baird's Sandpipers" reported there in late July 1973 (AB 27:897–902) we suspect were primarily Western Sandpipers. In 1989 the maximum we saw at Lake Lowell was 271 on 1 September (Figure 18B). There were 138 at Carey Lake on 26 August 1989, and less than ten were recorded at Dry Lake, Mackay Res., and Little Camas Res. that year. A flock of 220 was at Lake Lowell on 17 August 1990. Burleigh (1972) had three spring records in early May from northern Idaho, and a fourth spring record is of one at Mann Lake on 10 May 1977 (Weber and Larrison 1977). In late July the vast majority of Baird's Sandpipers in the U.S. are adults that stage on the high plains, from which they fly non-stop to northern South America (Jehl 1979). Numbers of juveniles peak in mid to late August in the U.S., and they migrate over a broad front. Baird's Sandpipers collected in Idaho have been juveniles almost exclusively (Jehl 1979), and all birds we identified to age were juveniles.

Pectoral Sandpiper (*Calidris melanotos*). Larrison et al. (1967) described this species as a fairly common fall migrant, and Burleigh (1972) recorded a maximum of 40. Most previous records have been from mid-August to late October. At American Falls Res. a few individuals arrived in August, but most occurred from mid- September to 30 October (Figure 19). Our maximum count was 237 on 14 September 1986. Lake Lowell had only two birds in 1989, when water began covering mudflats in early September, but in 1990, with large mudflats exposed throughout the fall, small flocks were seen beginning in early September with a peak of 23 on 11 October. Burleigh (1972) reported no spring records, but Larrison et al. (1967) stated the Pectoral Sandpiper occurred in mid-May. The only specific spring record for Idaho is of five birds at a pond in Gennesee, Latah Co., on 28 April 1971 (Weber and Larrison 1977).

Dunlin (*Calidris alpina*). There were 20 Dunlin records by 1986, including 14 for spring (Taylor and Trost 1987). At American Falls Res. we had nine on 28 October and 11 on 11 November 1987, and one on 19 August and three 16 October 1988. None was recorded in 1989. In 1990 Dunlins began arriving at Lake Lowell on 29 October, with a peak of 66 on 7 November, and two lingered until 12 December, the latest state record. One was photographed at Fort Boise WMA, Canyon Co., 12 May 1989 (AB 43:511–513), and two were at Indian Creek Res., Elmore Co., on 6 May 1990 (DT). The Dunlin is perhaps the only migrant shorebird recorded more frequently in Idaho in spring than in fall. This may be due to its distinct breeding plumage allowing easier identification in spring, but Strauch (1967) found the Dunlin consistently migrating in spring but not fall through the Willamette Valley, Oregon, and it is more frequent in spring at Malheur NWR, Oregon (Littlefield 1990). Alternatively, the lack of fall records may be due to this species' migrating in fall primarily in late October and November (Shuford et al. 1990), a time when little field work has been done in Idaho.

Stilt Sandpiper (*Calidris himantopus*). This sandpiper is a rare spring and fall migrant in Idaho with a total of 14 records by 1985 (Taylor and Trost 1987). At American Falls Res. we recorded two 26 July 1986, one 20 July 1987, one on 8 July 1988, and one on 1 September and eight on 15 September 1989. Another recent record is of one or a few at Kootenai NWR on 4 September 1986 (AB 41:118–121). Extreme fall dates for this species are 8 July and 19 September.

Short-billed Dowitcher (*Limnodromus griseus*). Larrison et al. (1967) considered this dowitcher a regular migrant, particularly in southern Idaho, but Burleigh (1972) had only eight specimen records, all from northern Idaho. Prior to our study there were 16 definite records for Idaho, including six from American Falls Res. (Taylor and Trost 1987). At American Falls Res. we recorded one on 5 and 18 September 1986, and one and six respectively on 12 and 26 July 1989. We saw two birds at Carey

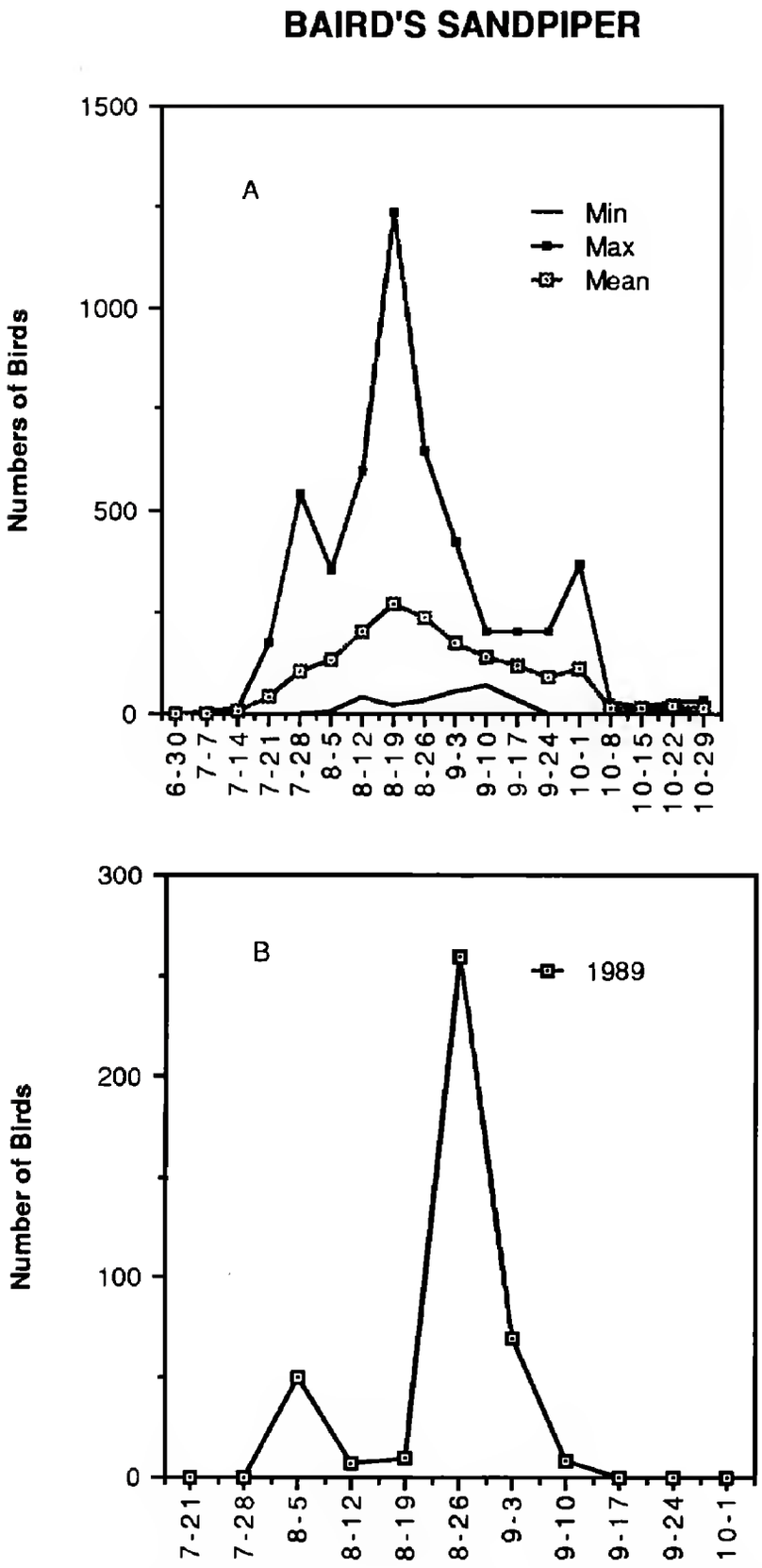

Figure 18. A, abundance of the Baird's Sandpiper at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details. B, abundance of the Baird's Sandpiper at Lake Lowell during fall migration, 1989.

Lake on 23 July 1989. Because we were unable to identify most dowitchers to species, it is likely that the Short-billed Dowitcher is a more numerous migrant than the few records suggest. All or nearly all specimens collected in Idaho are *L. g. caurinus* (Weber 1985).

Long-billed Dowitcher (*Limnodromus scolopaceus*). This dowitcher has been considered a fairly common spring and fall migrant in Idaho, with a high count of 25 (Larrison et al. 1967, Burleigh 1972). At American Falls Res. the dowitchers we identified to species, on the basis of call notes and sometimes plumage, were mostly this species. We found hundreds of dowitchers there from mid-July to late October (Figure 20A), with the latest state record on 30 October 1986. Our high count was 1026 on 11 August 1987. There were 140 dowitchers there on 10 May 1982 (DT, CT). At Lake Lowell in 1989 our high count was of 50 on 16 August, with birds present from 11 July to 29 September (Figure 20B). In 1989 we found 24 to 35 dowitchers at Little Camas Res. and Carey and Dry lakes, and fewer than ten at three other reservoirs. There were 282 dowitchers at Lake Lowell on 27 Sep 1990, and 200 at Camas NWR, Jefferson Co., on 12 July 1981 (INHP). In Oregon the early migration peak in July and August consists primarily of adults, the later peak of juveniles (Nehls 1989), and presumably this is also true for Idaho.

Common Snipe (*Gallinago gallinago*). This is a common breeder and rare wintering bird in Idaho (Larrison et al. 1967, Burleigh 1972). We found snipe in numbers of less than ten at American Falls Res. in all survey years and also at Lake Lowell and Carey Lake in 1989.

Wilson's Phalarope (*Phalaropus tricolor*). This phalarope has been considered a common migrant and local summer resident in Idaho with a high count of 30

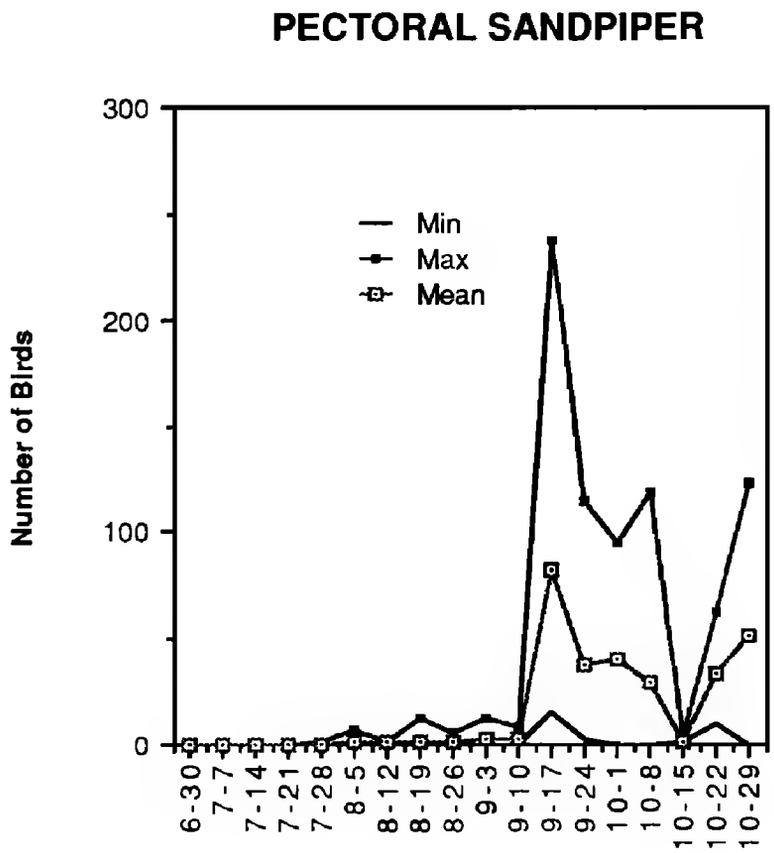

Figure 19. Abundance of the Pectoral Sandpiper at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details.

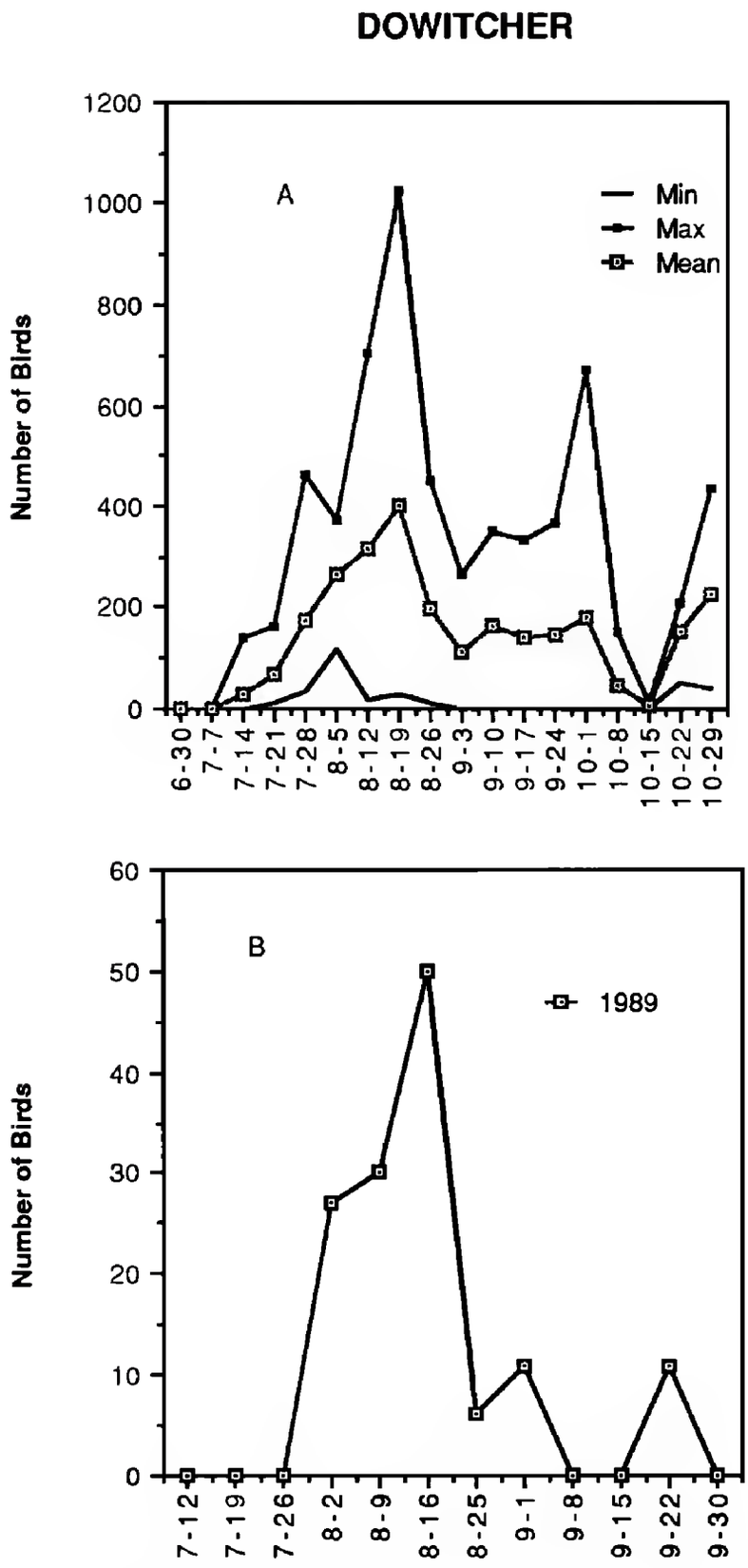

Figure 20. A, abundance of dowitchers at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details. B, abundance of dowitchers at Lake Lowell during fall migration, 1989.

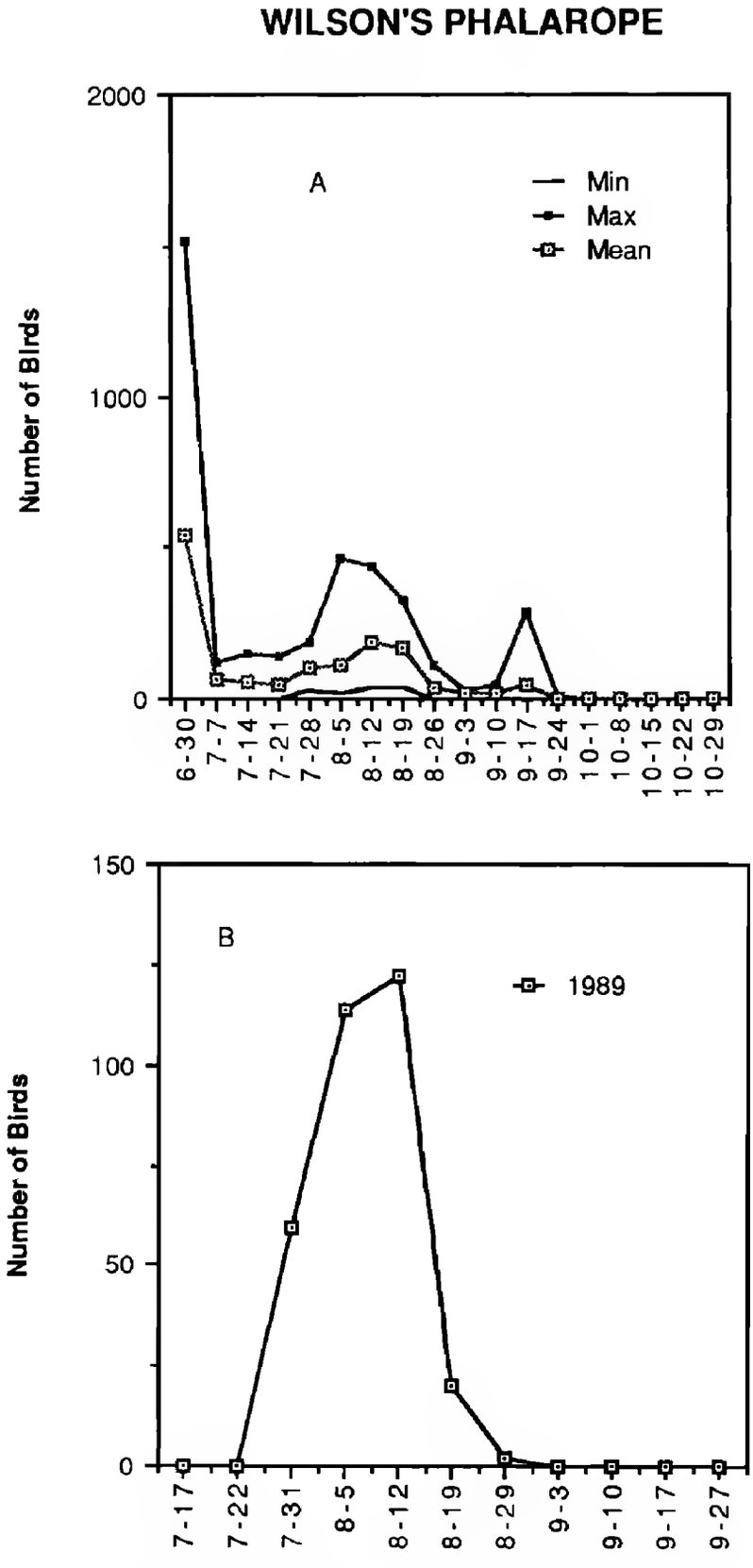

Figure 21. A, abundance of the Wilson's Phalarope at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details. B, abundance of the Wilson's Phalarope at Lake Lowell during fall migration, 1989.

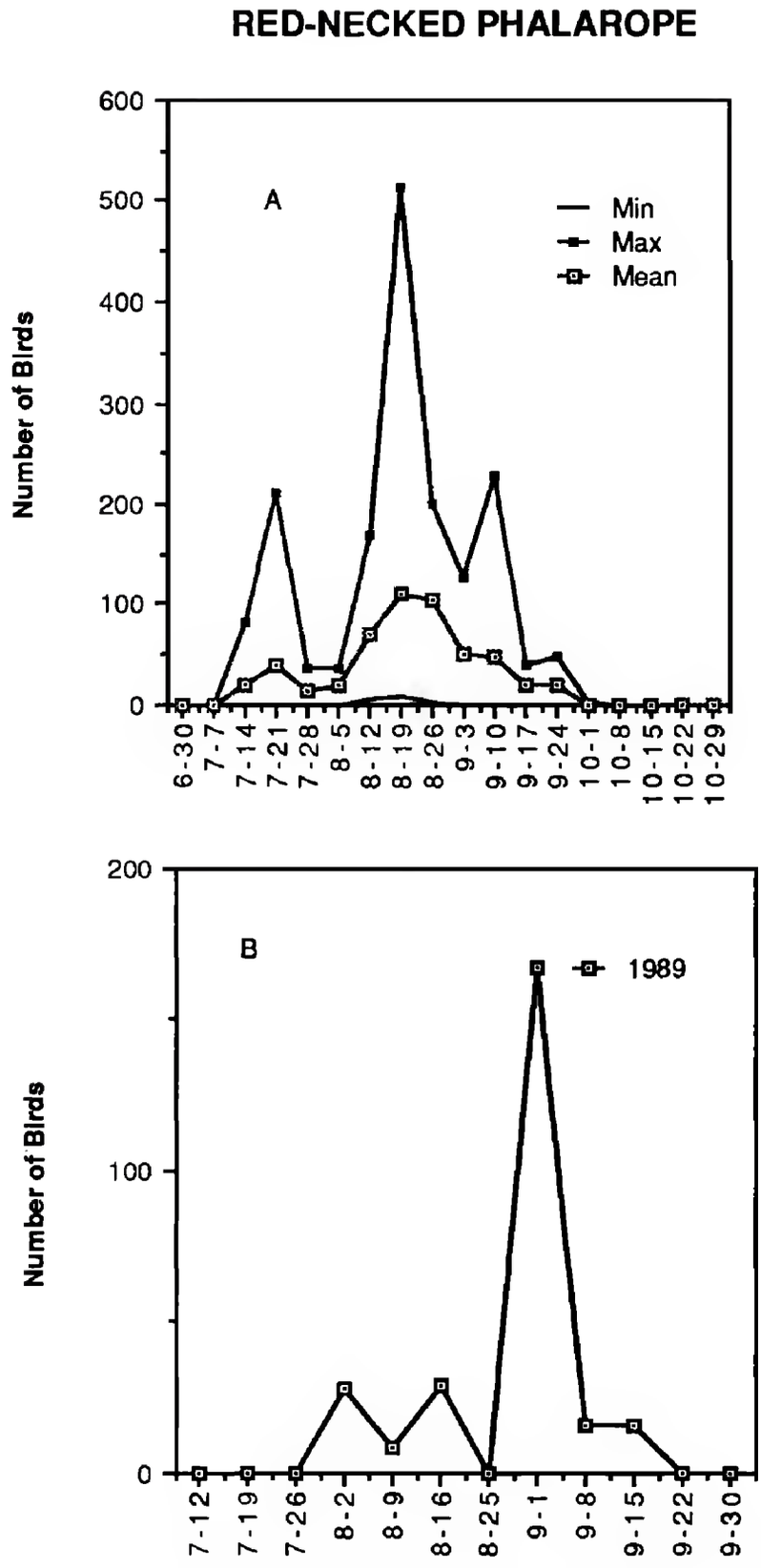

Figure 22. A, abundance of the Red-necked Phalarope at American Falls Reservoir during fall migration, 1986–1989. See Figure 5A for details. B, abundance of the Red-necked Phalarope at Lake Lowell during fall migration, 1989.

(Larrison et al. 1967, Burleigh 1972). At American Falls Res. it often occurred in the hundreds in July and August with a high count of 1524 on 24 June 1988 (Figure 21A). The latest fall record was of one there on 20 September 1987. "Thousands" were reported from American Falls Res. in late June 1979 (AB 33:881–883), and 300 were reported there on 27 July 1973 (AB 27:897–902). In 1989, Lake Lowell had a peak of 114 to 115 on 16 and 25 August (Figure 21B); there were 132 at Carey Lake on 12 August, and 35 to 49 were at Little Camas Res. and Dry and Bruneau Sand Dune lakes in July and August.

Red-necked Phalarope (*Phalaropus lobatus*). Larrison et al. (1967) and Burleigh (1972) stated that this phalarope was an uncommon to common migrant in Idaho, with a high count of 300 birds. Flocks of this species occurred erratically at American Falls Res. anytime from July to mid-September (Figure 22A), and one on 2 October 1988 is the latest seen in Idaho. We found one to 52 birds at several reservoirs and lakes below 5000 feet elevation in 1989, and had a high counts of 173 and 190, respectively, at Lake Lowell (Figure 22B) and Little Camas Res. in the last week of August. About 50 of these phalaropes were found foraging on open water in the middle of the Bruneau arm of C. J. Strike Res., Owyhee Co., several days in mid-September 1989 (DT). A notable spring record from southern Idaho is of 25 at Rupert in 1976 (AB 30:865–869).

DISCUSSION

We found most species of shorebirds in numbers much higher than previously known in Idaho (Larrison et al. 1967, Burleigh 1972). This probably indicates that migrating shorebirds have been largely overlooked and unquantified in Idaho, especially in the southern part (but see Davis 1935, Oring 1962), rather than that their numbers have increased recently. This report gives a more realistic picture of current numbers of migrant shorebirds at some staging sites in Idaho, but there are likely other important undiscovered or under-studied stopover sites at some of the state's hundreds of lakes and reservoirs. Particularly needed are systematic counts in Idaho during spring migration, which has been described only by anecdotal records. Extensive fall counts on natural wetlands in the southern part of the state and reservoirs and natural wetlands in northern Idaho are also needed.

Our counts of shorebirds in Idaho revealed several species in numbers unusually high for the Intermountain West. The Lesser Golden-Plover has been considered rare, with one to three individuals sporadically reported from Nevada (Hainline 1974, Alcorn 1988), Mono Lake, California (Gaines 1988), Malheur NWR, Oregon (Littlefield 1990), and Utah (Sordahl 1981), except for two "sizeable flocks" seen in May 1937 (Hayward et al. 1976). Killdeers have been considered common to abundant in Utah (Hayward et al. 1976), Nevada (Alcorn 1988), and eastern Oregon (Littlefield 1990), but the largest previous specific intermountain records, of 400+ at Bridgeport Lake Reservoir, California (Gaines 1988), 314 at Mono Lake, California (Winkler et al. 1977), and 150 at the Barrens, Utah (Sordahl 1981), are much lower than our maximum numbers. The Lesser Yellowlegs has been considered an uncommon transient in Nevada (Hainline 1974, Alcorn 1988), eastern California (Gaines 1988), eastern Oregon (Littlefield 1990), and Utah (Hayward et al. 1976), with a maximum of 90 found in northern

Utah (Sordahl 1981). The Semipalmated Sandpiper has been a rare but generally increasingly recorded migrant in Nevada (Hainline 1974, Alcorn 1988), eastern California (Gaines 1988), Washington (Jewett et al. 1953, Weber 1981), Oregon (Evanich 1989), and Utah (Behle 1958, Hayward et al. 1976, Sordahl 1981), although Nelson (1875) noted "large flocks" of shorebirds at the Great Salt Lake that he considered this species. The only reported concentrations of Baird's Sandpipers similar to those at American Falls Res. were 3000 at Bear River, Utah, in September 1950 (Hayward et al. 1976) and about 200 in September 1972 in western Nevada (Hainline 1974). The Pectoral Sandpiper has generally occurred in numbers of less than ten in the Intermountain West (Hainline 1974, Hayward et al. 1976, Winkler et al. 1977, Alcorn 1988, Gaines 1988). Large concentrations have been of 67 at The Barrens, Utah (Sordahl 1981), and 250 and 350 in September at Malheur NWR, eastern Oregon (Littlefield 1990).

Most of the species that we found in numbers unusually high for the Intermountain West—the Lesser Golden-Plover, Lesser Yellowlegs, Baird's Sandpiper, Semipalmated Sandpiper, and Pectoral Sandpiper—migrate primarily east of the Rocky Mountains (Harrington and Morrison 1979, Jehl 1979, Hayman et al. 1986). The largest numbers of these species were found in eastern Idaho. The Killdeer numbers may be the highest recorded simply because no one has bothered to count this numerous species. On the other hand, the Idaho counts could represent unusual concentrations for this species.

Although we were unable to census the large reservoirs of American Falls and Lake Lowell completely, the tens of thousands of shorebirds we sometimes recorded there document their importance as stopover sites. There was great variation in numbers of shorebirds at these reservoirs from week to week and from year to year, and at least some of this variation is caused by water-level fluctuations and timing of mudflat exposure. Most research on migrating shorebirds in the Intermountain West has focused on natural freshwater or alkaline lakes and marshes (Behle 1958, Hainline 1974, Winkler et al. 1977, Sordahl 1981, Mahony and Jehl 1985, Jehl 1988). While it is essential to continue studying and identifying important natural migratory staging areas for shorebirds, research should also be directed at man-made reservoirs. This is particularly true of reservoirs that have shallow slopes and extensive mudflats that are or could be exposed during periods of shorebird migration.

SUMMARY

We counted shorebirds at least weekly during fall migration at American Falls Reservoir from 1986 to 1989 and at Lake Lowell in 1989. Numerous other lakes and reservoirs in southern Idaho were covered infrequently in 1989. Our data and other recent records show that most shorebird species are much more abundant in Idaho than previously recorded. The most abundant species was the Western Sandpiper, with over 10,000 sometimes recorded at Lake Lowell. Species found in the thousands included the Killdeer, American Avocet, Baird's Sandpiper, Long-billed Dowitcher, and

Wilson's Phalarope. Species found in the hundreds were the Black-bellied Plover, Lesser Yellowlegs, Marbled Godwit, Willet, Semipalmated Sandpiper, Least Sandpiper, Pectoral Sandpiper, and Red-necked Phalarope. Twenty-three other species have been found in lesser numbers. The numbers recorded for the Killdeer, Lesser Golden-Plover, Lesser Yellowlegs, Semipalmated Sandpiper, Baird's Sandpiper, and Pectoral Sandpiper are among the largest known for the Intermountain West. Except for the Killdeer, these species migrate mostly east of the Rocky Mountains.

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NOTES

FIRST RECORD OF A MELANISTIC NORTHERN HARRIER IN NORTH AMERICA

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On 16 January 1991, Prairie spotted a melanistic adult male Northern Harrier (*Circus cyaneus*) at the intersection of Road 70 and Road Z, between Butte Creek and the Sacramento River, about 6 miles northwest of Gray Lodge Waterfowl

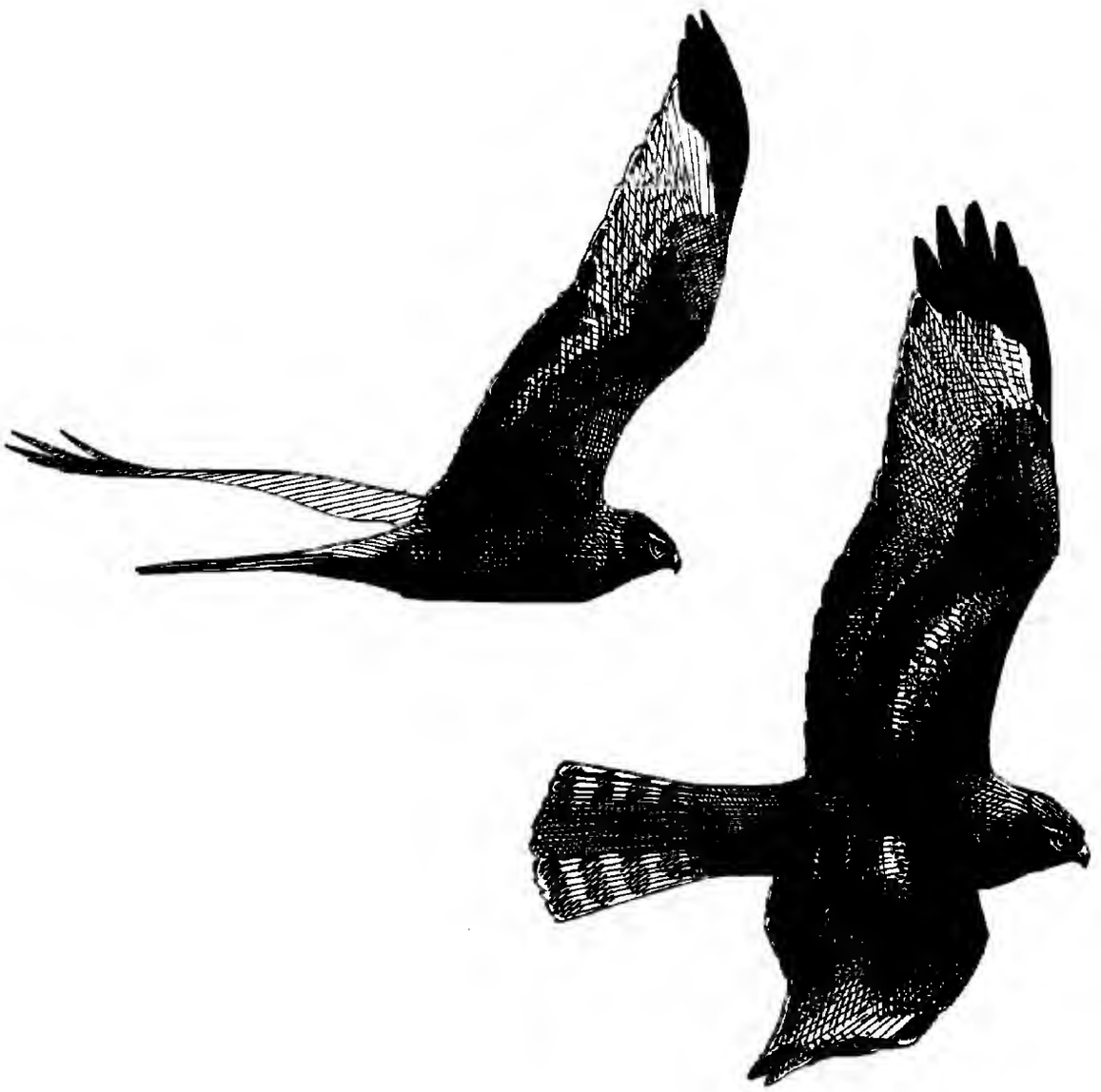

Figure 1. Melanistic Northern Harrier seen near Gray Lodge, Glenn County, California, on 16 January 1991.

Sketch by David A. Sibley

Management Area, Glenn County, California. The authors, together with Eli Holst, Emilie Strauss, Peter Watkins, and Janet Wessel, watched the bird for 20 minutes at ranges down to 50 m in good light. At least six other harriers were hunting over the same area but we saw no interactions between them and the dark bird. The following description is taken from the field notes of Howell, Webb, and Sibley. Figure 1 illustrates the appearance of the bird; particularly striking was the absence of the white band across the upper tail-coverts.

The size, shape, and behavior of the dark bird were all much like those of nearby male Northern Harriers. The head, body (including upper tail-coverts), and wing-coverts were uniform dark sooty charcoal gray, at times showing a faint brown tinge in bright light. The paler tips of the median and greater upper secondary-coverts formed two faint narrow wingbars. The irides were yellow, the cere was yellowish, and the legs and feet were orange-yellow.

The upperside of the remiges was smoky gray, paler than the wing-coverts, and marked by black tips on the outer primaries and a dark trailing edge on the secondaries. Overall, the upperwings displayed a muted tricolored pattern suggesting a male Marsh Harrier (*C. aeruginosus*), a species with which Howell is familiar from the western Palearctic. The upperside of the tail was smoky gray, similar in shade to the remiges or perhaps slightly darker, with three or four narrow darker bars and a broader dark subterminal (or terminal?) band. The undersides of the remiges and tail were colored and patterned like the upperside but paler gray, with a paler, at times silvery looking, panel inside the black wingtips. Thus the flight feathers showed the basic pattern of a typical male Northern Harrier, though the contrast was somewhat diffused by the overall dark pigmentation.

Size and structure support the bird's identification as a male Northern Harrier (rather than one of the potentially similar Old World harriers), as does the pattern of the flight feathers, which also indicates an adult male.

Apparently there are no previous reports of melanistic Northern Harriers in the New World (Palmer 1988), although at least one case has been reported from the Old World (Watson 1977). Although this bird differed strikingly in color from typical Northern Harriers, its distinctive shape and behavior enabled us to identify it immediately as a harrier; in fact, at a distance it could have been simply passed over.

The dark harrier was still present on 18 February 1991 when, with directions supplied by Prairie, Kathleen Smallfield and Catherine Syversen found it in the same area.

We thank W. S. Clark and L. F. Kiff for helpful comments on the manuscript. This is contribution number 511 of the Point Reyes Bird Observatory.

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GRAPPLING IN BLACK-SHOULDERED KITES

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On 3 March 1990 at approximately 0645 hours a displaying Black-shouldered Kite (*Elanus caeruleus*) attracted me by its continuous calling. The bird was flying back and forth low over a small grove of Monterey Cypress (*Cupressus macrocarpa*), near the intersection of Point Reyes–Petaluma Road and Nicasio Valley Road in western Marin County, California. The kite was wing-fluttering, leg-dangling, and calling continuously, in a display that is best described as flutter flight. I then noticed another kite soaring above the calling bird. A third kite flew toward the soaring bird and the two birds locked talons, threw their wings back, and twirled slowly to earth from an estimated height of 100–150 feet (Figure 1). This behavior has been referred to as "grappling" (see Jaques 1973). A small rise prevented my seeing the birds below about 20 feet above the ground, when they were still engaged. One of the grappling birds reappeared above the rise and stooped once or twice on the other bird, which remained out of sight. The same two birds flew back up to about the same initial height and repeated the grappling four times before flying off, while the original kite continued its flutter flight.

On the following day at 0900 hours at the same cypress grove I saw three kites engaging in similar behavior. On this day I saw only one episode of grappling. From observations of other kites in the county, I believe the flutter-flight display preceded nest building, but no kites nested that year in the grove.

Several studies of Black-shouldered Kites (Pickwell 1930, Hawbecker 1940, Dixon et al. 1957) made no mention of grappling. Watson (1940) was the first to describe grappling by Black-shouldered Kites. He concluded that the behavior was combative and the result of a territorial dispute. He observed two pairs of kites grappling simultaneously, each member of a pair engaged with a member of the opposite pair, but he was unable to determine how the sexes matched up in the encounters. The slight size dimorphism of Black-shouldered Kites (Johnsgard 1990) and the brevity of such encounters make distinguishing the sexes difficult. Waian (1973) spent 1100 hours observing Black-shouldered Kites and observed grappling only once.

Arlott (1984) observed a pair of Black-shouldered Kites grappling in 1975 in Kenya. He presumed this interaction was between a male and female. John Mendolsohn, in remarks appended to Arlott's note, stated that he had observed the behavior in color-marked birds of known identity and believed it to be aggressive. Johnsgard (1990) interpreted Arlott's (1984) observation as an example of aggression between members of a courting pair. Jepson (1986) reported behavior of two Black-shouldered Kites in Thailand "identical" to that reported by Arlott (1984).

Henry (1983) considered "talon-grapple . . . the most remarkable of the agonistic behaviors"; he observed an instance of it at a territorial boundary between an identified resident of the territory and an unidentified kite, in which the resident kite exhibited flutter flight before grappling with the intruder. Brown and Amadon (1968) described grappling by *Haliaeetus* eagles but did not mention this behavior in the repertoire of Black-shouldered Kites, though they reported its occurrence in larger kites such as *Milvus* species. They did not mention a third bird in their descriptions of grappling, and discussed this activity under breeding behavior. They did, however, caution against attributing grappling exclusively to courtship display. They cited as a possible example of aggression a pair of grappling *Haliaeetus* eagles plunging into the sea, one nearly drowning. They also noted that grappling appears to evolve from the mutual foot-touching when one raptor dives from above toward another and the lower bird rolls over on its back and presents its talons to the approaching bird. This behavior arises among raptors in both courtship displays and in conspecific and

Figure 1. Grappling Black-shouldered Kites above kite in flutter flight.

Sketch by Anne Rovetta

interspecific aggression. Still, Brown and Amadon concluded their chapter on display by maintaining that grappling is courtship behavior and that the chief error to be avoided in field observations is confusing it with combat.

In a note to Dawson's (1978) report of grappling by Eurasian Sparrowhawks (*Accipiter nisus*), Ian Newton stated that grappling in that species is always between "two females in aggressive conflict."

I surmise that the grappling that I observed, by two Black-shouldered Kites in the presence of a third bird, was combative rather than sexual behavior, involving two females attracted to a displaying male (flutter flight by female kites is rarely reported). Alternative interpretations are that two males were competing for the attention of a displaying female or that the grappling was intersexual aggressive behavior, i.e., a female repelling the advances of another male or defending her territory from him.

In any case, my observation supports the claim that grappling is aggressive behavior. If grappling were a standard part of the courtship display, it should be observed more commonly. In evaluating the conflicting interpretations of grappling as combat or courtship, it is well to remember the aggressive nature of raptors, which kill with their talons, that aggression may erupt in the course of courtship, and that if grappling ever occurs as a part of courtship display, it is probably ritualized aggression.

I thank the staff of the California Academy of Sciences' library and especially librarian Thomas Moritz for their help in researching this paper. I also thank the Point Reyes Bird Observatory for the use of its library, and Tupper Blake for the loan of books from his collection. I thank Robert Fisher for proofreading the text. I also thank Tim Manolis and Thomas Gatz for their essential criticism and suggestions.

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THE COMMON GRACKLE IN ARIZONA: FIRST SPECIMEN RECORD AND NOTES ON OCCURRENCE

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The range expansion of the Common Grackle (*Quiscalus quiscula*) into the western United States has been chronicled in recent issues of *American Birds*. Prior to this expansion, the species, while common in the eastern states (Dolbeer and Stehn 1979), was considered rare or local in the states surrounding Arizona. Sclater (1912) described the Common Grackle as locally common in summer in the plains and foothills of eastern Colorado. By 1940, the species had been reported twice in the Rocky Mountains (Bailey and Niedrach 1965). It subsequently spread into western Colorado (Kingery and Graul 1978, Chase et al. 1982), and increased rapidly there in the mid-1980s (Kingery 1986). In Utah, Hayward et al. (1976) considered it to be an accidental visitor, but in 1979 M. Perry saw four individuals near Altonah, Duchesne County (C. S. Robbins pers. comm.). By 1984, Behle et al. (1985) listed the Common Grackle as a rare summer resident, nesting at Vernal and possibly at Green River and Utah Lake. Kingery (1987a) reported nesting at Moab, Utah. Ryser (1985) considered the species rare in the Great Basin, but Kingery (1987a, b) reported it breeding at Dyer and Stillwater, Nevada. Vagrants are also known from Oregon, Washington, California, and even Alaska (Roberson 1980).

Bailey (1928) made no mention of the Common Grackle's occurrence in New Mexico; however, Ligon (1961) found a small nesting colony near Folsom, northeastern New Mexico, in 1951. By 1970, the species had spread locally throughout the eastern two-thirds of the state (Hubbard 1970). Sightings from western New Mexico are reported frequently in *American Birds*. Phillips et al. (1964) made no mention of the Common Grackle in Arizona, but by 1980, Monson and Phillips (1981) noted the species nesting in New Mexico near Farmington (about 80 km from Arizona) and a sighting at Blackrock (24 km).

On 20 June 1980, we salvaged some feathers from an adult male Common Grackle at about 2500 m elevation, 10 km west of Blue River, Greenlee County, in extreme eastern Arizona. The remains of this grackle, consisting of three primaries and five rectrices (University of Arizona 16204), were found below a raptor's plucking perch (tree). In addition to providing the first specimen record of the Common Grackle in Arizona, these feathers represent the earliest known occurrence of the species in the state. The second substantiated record for Arizona is supported by a diagnostic photograph by B. Schaughency and R. Morse of a bird at Portal, Cochise County, from 25 to 27 November 1988 (Rosenberg and Stejskal 1989).

Sight records from Kayenta, Navajo County, northeastern Arizona, include our observations of a pair on 30 July 1983 and single birds on 22 September 1983, 13 May 1984, 15 July 1984, 6 October 1984, 9 May 1986, 20 April 1988, 25 November 1988, and from 15 to 21 December 1989. The latter bird was first located by Rob Johnson.

Additional unsubstantiated observations from Arizona are of single birds at Muleshoe Ranch, Cochise County, from 16 to 19 April 1983 (E. Fisk; G. Monson pers. comm.), Lake Pleasant, Maricopa County, from 18 December 1984 to 23 January 1985 (T. Corman et al.; Witzeman and Stejskal 1985), Tanque Verde Guest Ranch, Pima County, from 23 December 1984 to 7 January 1985 (L. Dombrowski et al.; Witzeman and Stejskal 1985), Willcox, Cochise County, on 18 May 1988 (M.

and J. Price; Stejskal and Witzeman 1988), Buenos Aires National Wildlife Refuge, Pima County, on 24 November 1988 (J. Kingery; Rosenberg and Stejskal 1989), and St. David, Cochise County, from 29 December 1989 to 23 January 1990 (R. Ferguson and R. Norton; Stejskal and Rosenberg 1990).

These records indicate that the appearance of the Common Grackle in eastern Arizona during the early 1980s coincided with the species' expansion in other states west of the Rocky Mountains. So far, all observations are of transient or wintering birds, but the two summer records suggest that present or future breeding is likely in Arizona.

We thank Cathy Ellis for clerical and library support, Gale Monson for his review and for providing unpublished records from his files, and Chan Robbins, Deanna Dawson, Gary Rosenberg, Janet Witzeman, and Jeffrey Spendelow for reviewing the manuscript. Amadeo M. Rea and Roxie C. Laybourne confirmed our identification of the feathers. We appreciate Cathy Ellis and Anne LaRue for patiently tending "the home front" during our grackle rambles.

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BAJA CALIFORNIA SPECIMENS OF *PARUS GAMBELI BAILEYAE*

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Grinnell and Swarth (1926) described a Baja California subspecies of the Mountain Chickadee as *Penthestes* (now *Parus*) *gambeli atratus*, separating it from *P. g. baileyae* of southern California on the basis of longer tail, darker general coloration, and restriction of the white supercilium. The range as then known was confined to the Sierra San Pedro Mártir, at altitudes from 6000 to 8500 feet. Later Grinnell (1928) added the more northerly Sierra Juárez to the range of *atratus*, citing localities at 4200 and 5200 feet. He reported that "some individuals seek somewhat lower levels adjacent in winter," and listed November and December specimens from El Valle de Trinidad, 2500 feet; this locality is "the valley leading westward from the pass which separates the Sierra Juárez from the Sierra San Pedro Mártir, about lat. 31°20'." He also quoted Anthony (1893), who stated of the Mountain Chickadee that "in winter it was seen about Valladares and along the lower valleys." Valladares is at the west base of the Sierra San Pedro Mártir at 30°54'N, 115°41'W, elevation (*fide* Grinnell 1928) 2700 feet.

Grinnell and subsequent authors mentioning lowland Baja California records (Miller et al. 1957, Wilbur 1987) have assumed that these refer to birds moving downslope from the breeding elevations of *P. g. atratus*.

Although Anthony may have seen numbers of Mountain Chickadees at Valladares and other lowland localities, he collected only one specimen. This is Carnegie Museum of Natural History (CM) 17357, a male taken at Valladares on 6 December 1888. Most unexpectedly, it proves to be a specimen of the southern California subspecies, *P. g. baileyae*. Although this mountain race is known to winter at least casually to the Pacific coastal lowlands (Unitt 1984; one speciment from Point Loma, San Diego County, 25 September 1965, San Diego Natural History Museum [SD] 35520), and one specimen has been taken in the irrigated area of inland desert (4.5 miles northwest of Imperial, Imperial County, 16 December 1990, SD 47587), it has never been attributed to Baja California. Having made this discovery, we borrowed from the Museum of Vertebrate Zoology, Berkeley (MVZ), the lowland Baja California specimens mentioned by Grinnell (1928) on the chance that these, too, might be referable to *baileyae* rather than to *atratus*. They were collected at El Valle de Trinidad on 27 November, 14 December, and 17 December 1926 (MVZ 50362, 50363, and 50364).

The Carnegie Museum collection holds series of both *baileyae* and *atratus*; to attain a better balance of representation of the sexes, additional female specimens of *atratus* were borrowed from the San Diego Natural History Museum. These confirm the statement of Grinnell and Swarth (1926) that the color difference between the races "tends to be lost even when the feathers become only slightly worn." However, the darker, more leaden and less brownish dorsal color of *atratus* is still visible when these rather worn series are compared. Grinnell and Swarth's tail measurements for males showed no overlap: 8 *baileyae* 56.0–59.5 mm (mean 57.7); 6 *atratus* 60.0–62.5 mm (mean 61.2). The larger Carnegie plus San Diego series (*baileyae,* 19 ♂,12 ♀; *atratus,* 14 ♂, 7 ♀), however, indicates that there is no significant difference between the subspecies in either sex in tail length, or, for that matter, in wing length (measurements on file at CM). Incidentally, Hellmayr (1934), although stating that *atratus* has a longer tail than *baileyae* and reproducing Grinnell and Swarth's measurements of 60–62.5 mm for *atratus*, inexplicably gave the tail measurements for *baileyae* as 63–67 mm!

The only mensural characters in which we found slight differences between *baileyae* and *atratus* are the length and width of the bills of males. The bill measurements of the smaller series of females do not differ significantly. Bill length (in millimeters) was measured as the chord from the distal end of the nares to the tip of the bill, and width was measured at the distal end of the nares. Specimens collected in June, July, or August that were labeled as "immature" by the collector were excluded from the computations, but our figures indicate that "immature" specimens collected in September or later have fully grown bills.

The bills of male *baileyae* ($N = 15$) are slightly but perceptibly longer and more slender than those of *atratus* ($N=12$): bill length of *baileyae*, 8.59 ± 0.59 mm; of *atratus*, 8.32 + 0.20. Bill width of *baileyae*, 3.68 ± 0.22; of *atratus*, 3.85 + 0.14 (all figures are means ± standard deviations).

As for color, this is affected not only by seasonal wear, as emphasized by Grinnell and Swarth (1926), but also by museum age. Almost all of the specimens we examined were collected in the 1890s or the 1920s, plus four in 1956 or 1957 and one in 1990. These series made it evident that there is a progressive browning of the originally grayish colors of back and flanks; the difference between the 1990 specimen and those from the 1950s is slight but perceptible, but between the 1890s, 1920s, and more recent specimens it is obvious. We therefore attached subspecific signficance only to comparisons made between specimens of similar museum age. We found that, as indicated in the original description of *atratus*, that race averages darker and more leaden, less buffy, on the back and flanks than *baileyae* of equal age.

The most immediately obvious character differentiating *baileyae* and *atratus* is the reduction of the white supercilium of the latter. It is always very narrow, and in most specimens it is discontinuous; in some extreme specimens it is reduced to no more than two or three white feathers. There is overlap, however, in this character as well. Some specimens of *baileyae* have a narrow supercilium, but it is virtually always continuous, with only a few exceptions. The full extent of variation in *baileyae* thus incorporates most of that in *atratus* except for the minimal (i.e., almost missing) development of the superciliary. In the reverse comparison, only four males among 19 breeding-season *atratus* of both sexes have unbroken superciliaries, and these are always narrow.

In all characters, CM 17357, the Valladares bird, is typical of *P. g. baileyae*. Because it is less worn than most of the other 1890s specimens, its colors are not strictly comparable, but it comes nearest to matching specimens of *baileyae*. The white supercilium is broad and unbroken. Its bill measurements are equivocal, at length 8.52 and width 3.98 mm matching specimens of both subspecies. Although the means for bill width of females are not statistically separable, MVZ 50362 has the narrowest bill (3.42 mm) of any specimen measured. In general color and in development of superciliary, this specimen, from El Valle de Trinidad, Baja California, is also clearly referable to *baileyae*. MVZ 50363 and 50364, also females, are nearest *baileyae* in back and flank color, although not as distinctly so as MVZ 50362. Both have narrow but unbroken superciliaries, and we believe they can safely be assigned to *baileyae* as well.

Unfortunately, weights were recorded for only five specimens among the series examined, but additional weights, especially for *atratus*, might demonstrate a difference between the subspecies. November and December specimens identified as *baileyae* weighed 8.2, 10.0, 10.2, and 10.5 grams; the only *atratus* weight available, of SD 32309 from Laguna Hansen, Sierra Juárez (5200 feet), November, was 14.0 gm.

Valle de Trinidad and Valladares are approximately 175 and 230 km south-southeast, respectively, of the southernmost known breeding locality for *P. g. baileyae* in San Diego County, California (Unitt 1984). The specimens reported here are thus sufficient to indicate that winter wandering of Mountain Chickadees is more extensive

than currently realized, and may serve to bring members of one subspecies within the winter range of another. There is a parallel case in southern Arizona, where the only lowland specimen of Mountain Chickadee is not of the local mountain subspecies *P. g. gambeli*, but of the pale subspecies *P. g. inyoensis* that breeds in northwestern Arizona (Phillips et al. 1964). It is thus apparent that specimens of supposed down-slope stragglers should be collected and critically examined; otherwise we will not be able to dfflerentiate between local movements and unexpected long-distance migrations.

We should give credit to the late W. E. Clyde Todd for having correctly identified the Valladares specimen as *baileyae*, as shown by his unpublished notes in the files of the Carnegie Museum's Section of Birds; he did not, however, comment on its geographic significance.

Specimens to augment the Carnegie Museum series were borrowed from the Museum of Vertebrate Zoology, University of California, Berkeley, through Ned K. Johnson, and from the San Diego Natural History Museum through Philip Unitt. Unitt and Allan R. Phillips provided many constructive suggestions based on reading an earlier draft of this note.

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Mountain Chickadee *Photo by Ian C. Tait*

BOOK REVIEW

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The Known Birds of North and Middle America. Part 1, 1986; Part 2, 1991. Allan R. Phillips. A. R. Phillips, Denver, CO. Part 1, lxi + 259 pp., 2 color plates, 9 black and white figures; Part 2, lii + 249 pp., 5 color plates, 5 black and white figures. Price: Part 1, $60.00; Part 2, $64.00. Order from Allan R. Phillips, 3540 South Hillcrest Dr. #5, Denver, CO 80237.

When I was first becoming deeply interested in birds, many times did I read and reread the fifth edition of the *A.O.U. Checklist of North American Birds* and Grinnell and Miller's *Distribution of the Birds of California*. Anyone familiar with these works knows that subspecies figure prominently in them. What are these subspecies, I wondered, and how could I learn to identify them? The A.O.U. Checklist and Grinnell and Miller were long on the where, said a little about the when, but were almost silent on the what. Field guides taught me how to distinguish species, but they tiptoed gingerly around—or ran in horror from—the identification of subspecies. Still, my curiosity persisted. Later, I learned of Mayr and Short's *Species Taxa of North American Birds*, Ridgway's *Birds of North and Middle America*, and Phillips, Marshall, and Monson's *Birds of Arizona*. Now the door began to open, but the way it led was not easy. The literature was vast and scattered. Ridgway's work, the most recent (1901–1950) comprehensive source giving descriptions and keys for all subspecies, is no longer up to date. Many subspecies have been described or revised since the publication of most of the volumes. Now we have Allan Phillips' *The Known Birds of North and Middle America*, parts 1 (December 1986) and 2 (May 1991). Phillips (Part 1, p. lvii) says "this book is by no means a substitute for Ridgway's classic, . . . [but] it does attempt to bring Ridgway's and Hellmayr's lists up to date in certain respects."

Allan Phillips is probably best known to readers of *Western Birds* as co-author of *The Birds of Arizona* (1964) and *Annotated Checklist of the Birds of Arizona* (1981). Among the dozens of papers he has published, one of the best known must be "Semipalmated Sandpiper: Identification, Migration, Summer and Winter Ranges" (American Birds 29:799-808, 1975), in which he exposed as false the notion that the Semipalmated Sandpiper winters widely in the eastern U.S. That paper exemplifies Phillips' hallmark style, continued in *Known Birds*: using studies of museum specimens to attack and debunk conventional wisdom. Not surprisingly, this style brings Phillips into frequent disagreement with more conventional ornithologists.

Part 1 covers the swallows, corvids, shrikes, tits, nuthatches, wrens, dippers, bulbuls, Wrentit, mimids, and creepers; Part 2 covers the waxwings, silky flycatchers, Olive Warbler, kinglets, Old World warblers and flycatchers, gnatcatchers, thrushes, accentors, wagtails, pipits, starlings, and vireos. Each species account begins with a citation of the original description, type locality, and vernacular names in English, Spanish, and French. The reader will quickly discover that, among English names, Phillips much prefers those widely used in the first half of this century (e.g., Hartlaub's Jay, White-necked Raven) over novelties coined by Eisenmann or the A.O.U. Checklist committee (Bushy-crested Jay, Chihuahuan Raven). Next comes an outline of the species' range, describing breeding and winter ranges, migration routes, and occurrences of vagrants, often in fairly general terms. Species migrating to Middle America get a paragraph specifying extreme dates in that area. Erroneous and dubious reports are pointed out—and often roundly criticized. Historic changes in status and distribution, if any, are described, and the reasons for them are explained.

"Remarks" or "Notes" cover taxonomic or nomenclatural problems or disputes—often in vivid and colorful language.

Finally comes what I consider the real meat of the book, the section, under each polytypic species, on geographic variation. Most of these sections are by Phillips himself, but some were contributed by other ornithologists: Robert W. Dickerman, Daniel D. Gibson, Kenneth C. Parkes, Mario A. Ramos, Amadeo M. Rea, and J. Dan Webster. Each subspecies receives the same treatment as the species as a whole, and its distinguishing characters are summarized. How monumental and arduous a task it was to assemble this information can be appreciated only by someone who has attempted to research geographic variation in even one species, as I learned in my study of the Willow Flycatcher.

Not only have Phillips and his contributors characterized all currently known North and Middle American subspecies in the families covered, their studies prompted the description of no fewer than 78 new subspecies. Most of these, as might be expected, occur in Mexico or Central America, whose birds have been studied far less than those of the U.S.A. or Canada. Still, 26 of the new forms occur north of the Mexican border, and at least 9 of them occur in California (7 of these were described by Rea).

Most of the new subspecies were revealed through study of recently molted specimens in fresh plumage, some recently collected in areas from which few or no fresh-plumaged specimens had been available. Browning (1990, Taxa of North American Birds Described from 1957 through 1987, Proc. Biol. Soc. Washington 103:432–541) independently assessed the validity of the 15 new subspecies described in Part 1 and occurring in the area of the 1957 A.O.U. Checklist (Canada, U.S.A. excluding Hawaii, Baja California); he supported 10 of them. Specimens adequate to exemplify these subspecies are not found in every museum, however, even the largest. Certainly, the subspecies of the Winter Wren and Hutton's Vireo described by Rea cannot be evaluated without reference to the dozens of specimens collected by him over the last 13 years and now in the San Diego Natural History Museum.

Also of much interest are the subspecies described since 1957, date of the last A.O.U. Checklist covering subspecies, and so probably unfamiliar to many readers. Californians should note especially *Toxostoma leconteii macmillanorum*, restricted to the San Joaquin Valley and described by Phillips (in 1965) as darker than *T. l. leconteii*, occurring elsewhere in the U.S.A. These recent discoveries illustrate how the full extent of biodiversity is not yet known even in the United States, the reason for the "known" in *Known Birds*.

Phillips has not taken anybody's word for anything; he has reassessed all previously described subspecies as well. Quite a few of these he has synonymized, pointing out that the supposed subspecies characters were based on comparison of foxed with unfoxed specimens, worn with unworn plumage, adventitious staining with soot, or even wishful thinking on the part of the describer.

There are some innovations at the level of the species and genus, too, and, not surprisingly, quite a few differences from the sixth edition of the A.O.U. Checklist. I count 5 species and 10 genera split by the A.O.U. but lumped by Phillips, and 17 species and 2 genera lumped by the A.O.U. but split by Phillips. In addition, names of 8 species differ for purely nomenclatural reasons, that is, disagreements over the applicability or priority of original descriptions. Some of the innovations, such as the splits of Bicknell's from the Gray-cheeked Thrush and of the eastern and western Warbling Vireos, both suggested with question marks, represent intriguing hypotheses for further study. But others, such as the unexplained lumping of the Yellow-billed and Black-billed Magpies, especially in contrast to the splitting of the Santa Cruz Island and Florida Scrub Jays, seem arbitrary.

Before the reader gets to the meat of the book, however, he will have to run the gauntlet of Phillips' seemingly endless sermonizing. The introductory material occupies 45 pages in Part 1, 37 in Part 2. Some introduction is necessary in any book of this nature, but much of it in these volumes consists of bewailing humanity's defects. Furthermore, the species accounts are regularly interrupted by digressions whenever a misidentification or misinterpretation illustrates a point Phillips wishes to make. The basic ideas that Phillips espouses are fundamental, admirable, and, I hope, noncontroversial: the rules of nomenclature should be followed logically and impartially, conclusions in science should be based on reverifiable data, effective conservation of birds must be based on conservation of viable tracts of habitat, observational data should not be forced to fit an inappropriate theoretical framework, statistics should not be used to conceal a lack of adequate data, and so on. But by presenting his views so stridently, laced with personal attacks against those who have failed to meet his standards, Phillips risks alienating the very audience he is trying to reach. Worse, he invites being labeled as a crackpot and his audience's dismissing his results before it ever reads them. Among the many enemies that Phillips seems to have made over his long career, he must put himself at the head of the list.

To focus this review on Phillips' diatribes would be pointless and counterproductive. I do, however, have some criticisms of other aspects of the book. Economy of expression is another of Phillips' obsessions. He uses so many abbreviations that he needed six pages at the beginning of the book just to list them all. Saving space, and therefore money, was clearly a prime concern in this author-published book. The margins are so narrow that the page numbers occasionally got shaved off at the bottom, but there is appreciable white space at breaks not only between families but also between some genera. Professional editing and production would have yielded a more pleasing book. At least Phillips' striving for conciseness seldom led him into bad grammar.

Illustrations consist of 7 color plates and 11 distribution maps, covering selected species. Paintings by Ann Pulich depict three species of rough-winged swallows, three nightingale wrens, the Rufous-backed and Grayson's Robins, and three subspecies of *Catharus* thrushes; one by John C. Anderton depicts six Mexican subspecies of Warbling Vireo relatives. These are well done and useful, but unfortunately the two in Part 1 lack legends (refer to the text for explanations), and I am disturbed in Part 2 by the dissimilarity between the chocolate-colored bird designated as *Catharus fuscescens salicicola* in Plate 1 and the paler, more rufous one of the same subspecies photographed on Plate 3. More color illustrations of everything would have been ideal, as it is in color that most subspecies differ, but many color illustrations, a short print run, and a reasonably priced book are an impossible combination.

The distribution maps, emphasizing Mexico, are helpful, except for Figure 4 in Part 2 (in which some or all of the shading slipped out of place during printing). Many more maps would have been desirable, however, especially because the descriptions of ranges are often too general. For example, I can not figure out to what extent, if any, *Lanius ludovicianus excubitorides* occurs in California (Part 1, page 77), and I can not figure out which race(s) of the American (Water) Pipit winter(s) in California. Phillips tries to express range descriptions in terms of "parts of an idealized state or province" (Figure 1 in both parts 1 and 2), i.e., standard sectors designated by terms like "central-western." This works well enough for an approximately square state such as Arizona but is "an inappropriate theoretical framework" for an irregular, complex one such as California. More use of counties and exact localities to express ranges would have been preferable.

Graphic devices would have helped greatly in the presentation of subspecies characters, too. In a complex species such as the Hermit Thrush, the reader will have to construct for himself a diagram like Figure 1 to pick his way through the maze of

darker versus paler and grayer versus rustier. Such diagrams would have facilitated understanding of the variation in many species.

Phillips excoriates arrogance, a vice too prevalent in all human endeavors. Yet even he seems to slip into it, writing that he "seldom count[ed] numbers of specimens examined. . . . Such details I leave to those with little to do" (Part 1, p. lx). Now, Phillips is correct when he says "for practical purposes, i.e., recognition and identification of mensural subspecies, one needs the *normal ranges* of measurements, not means or statistics" (Part 1, p. lvi). But aren't the simplest of statistics, means and standard deviations, the tools with which one assesses the likelihood of measurements falling toward the extremes of a range and possibly into the range of another subspecies? And doesn't the number of specimens examined convey a notion of the strength of a statistical base? Like Phillips, we should all "eschew statistical smoke-screens," but I think he has taken a phobia of numbers a bit too far. Fortunately, most subspecies are *not* mensural, being defined instead on differences in color and pattern.

The method of literature citation in "Known Birds" can be maddening. Many frequently cited references are abbreviated and keyed in the introduction. There is an extensive bibliography at the beginning of the account of each family, but I can not divine any principle by which the references in these bibliographies were organized.

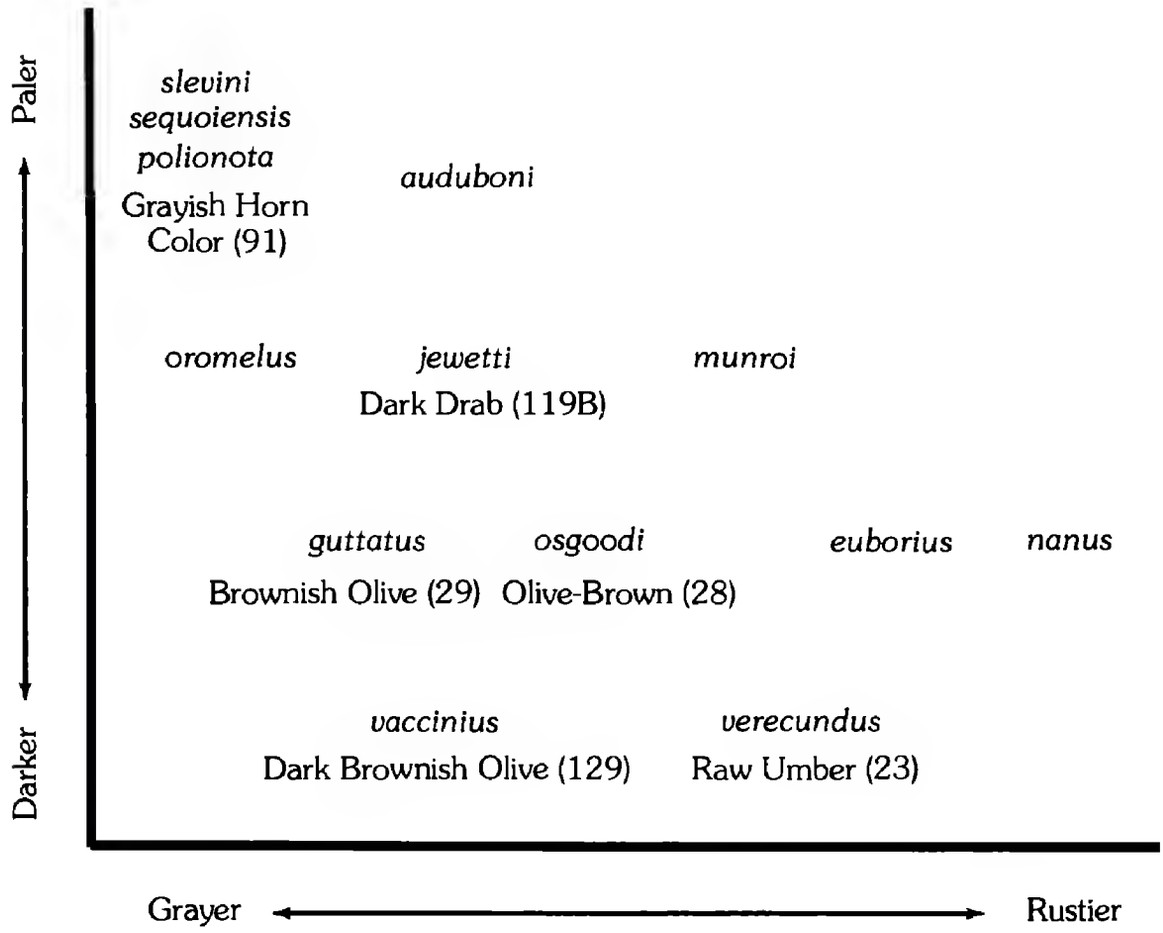

Figure 1. Variation in back color among subspecies of the Hermit Thrush (*Catharus guttatus*). Color names and numbers are from Smithe (1975, Naturalist's Color Guide, Am. Mus. Nat. Hist., New York) and determined by comparison to recently collected fresh-plumaged specimens in the San Diego Natural History Museum. Other subspecies are placed in comparison as implied by Phillips.

They are all run in one continuous paragraph, requiring the reader to pore laboriously through the entire paragraph to locate any given reference. Still other references are cited in text. And some references may never actually be cited at all. For example, on page 189 of Part 1, under *Toxostoma longirostre*, we find "Miller 1957." Yet I can't find the reference in either the list of abbreviations or the list following the heading for the family Mimidae. Perhaps this and other mystery references crop up in places I haven't thought to search, but Phillips has made it difficult for readers to follow his tracks.

An even more fundamental and less excusable flaw is Phillips' not giving the year of collection, catalogue number, or museum housing the type specimens of subspecies newly described by him in this book. Fortunately, the other contributors supplied these data in the accounts they wrote. I certainly sympathize with Phillips' desire to protect what few bird collectors remain from the persecution of misguided bureaucrats and zealots (Part 1, p. xxii). But as Phillips so rightly points out, the foundation of science is hypotheses being tested and observations being repeated. If one cannot locate the type specimens, how can one test the hypothesis that the subspecies defined by them is valid?

I should point out that Part 2 is better than Part 1 in a number of ways: better labeling of figures, more thorough descriptions of ranges, addition of a symbol drawing attention to newly described taxa, etc.

Although few will find this book easy reading, I believe that every reader of *Western Birds* can benefit from it. The two volumes are packed with basic, descriptive ornithology and the results of a lifetime of original research. Much of the information in them is accessible nowhere else. Regrettably, Phillips is apparently planning no further volumes.

Regardless of what any of us thinks of Allan Phillips, surely all of us can agree that exposure to new and different ideas can only stimulate our minds. Conformity is boring; controversy is exciting. I urge every reader to look beyond both Phillips and his opponents to the issues their disagreements raise.

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Cover photo by © Daniel Lee Brown of Sacramento, California: singing Savannah Sparrow *(Passerculus sandwichensis)*, Morro Bay, California, March 1984.

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THIRTEENTH REPORT OF THE CALIFORNIA BIRD RECORDS COMMITTEE

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Western Field Ornithologists and the California Bird Records Committee are again pleased to thank Bushnell, a division of Bausch & Lomb, *for its continued generous support in sponsoring the publication of our reports.*

This report contains 376 records of 96 species that have recently been reviewed by the California Bird Records Committee (hereafter, the CBRC or the Committee). The 321 accepted records of 83 species and 55 rejected records of 36 species represent an 85.4% acceptance rate. Reports were received from 37 of the state's 58 counties, including all coastal counties. As in past years, the best-represented counties were San Francisco (44 accepted records including 36 from Southeast Farallon Island), San Diego (35), Santa Barbara (31), Monterey (25) and Marin (21). Although the dates of the records extend from 30 August 1969 to 9 September 1989, the great majority of them (339) are from 1 December 1986 to 28 February 1989, representing a very high percentage of the records of CBRC Review-List species (see below) from California published in *American Birds* (hereafter AB) during this period. In 1991, the Committee received 236 records, an increase of 15 from 1990. The Committee greatly appreciates the increasing interest by the birding community in submitting documentation of rare birds in the state.

We continue to encourage birders and ornithologists to support the CBRC process by submitting written reports and/or photographs to Michael A. Patten, CBRC Secretary, P. O. Box 8612, Riverside, CA 92515. We believe that the decisions of the CBRC are highly qualified, standardized assessments of the validity of records but not always the final word on whether or not an identification is correct. "Final" Committee decisions are always re-reviewable given new information; historically,

decisions both to accept and to reject have been overturned upon further Committee review. Additional consequences of the Committee process include the archiving of all reviewed documentation and the accumulation of much useful information concerning the identification and status of Review-List species in the state, through the consolidation and synthesis of comments by ten or more members of various disciplines and with a wide range of field experience. See Roberson (1990) and Bevier (1990) for more on the evolution, functioning, and benefits of the Committee process.

All records published in CBRC reports are archived by Lloyd Kiff at the Western Foundation of Vertebrate Zoology (439 Calle San Pablo, Camarillo, CA 93010) and are available to anyone interested in reviewing the documentation and assessments of the CBRC. All voice recordings are kept at the California Academy of Sciences, Department of Ornithology and Mammalogy, Golden Gate Park, San Francisco, CA 94118. The Committee continues to review both current and past records of birds on its Review List; with the publication of our upcoming summary of old records in the fourteenth report, over 92% of all published records of Review-List species will have been evaluated. The Committee continues to solicit documentation of unreviewed past records, published or not.

State List and CBRC Review List. This report provides details on four additions to the California state list: Terek Sandpiper (*Xenus cinereus*), Long-toed Stint (*Calidris subminuta*), Xantus' Hummingbird (*Hylocharis xantusii*), and Gray Wagtail (*Motacilla cinerea*). The earliest accepted record of the Ruddy Ground-Dove (*Columbina talpacoti*) is also published here. Patten (1991) noted the CBRC acceptance of three additional species— Murphy's Petrel (*Pterodroma ultima*), Common Pochard (*Aythya ferina*), and White-tailed Ptarmigan (*Lagopus leucurus*). Recent acceptance of a Smith's Longspur (*Calcarius pictus*) photographed at Moss Landing, Monterey County, 13–18 September 1990, a Cave Swallow (*Hirundo fulva*) photographed near Westmorland, Imperial Co., 8 August 1987, and a Red-flanked Bluetail (*Tarsiger cyanurus*) photographed in hand at Southeast Farallon Island, 1 November 1989, brings the current state list to 579 species. Recent reports of the Crested Caracara (*Polyborus plancus*), Green Kingfisher (*Chloroceryle americana*), and Eyebrowed Thrush (*Turdus obscurus*) were not accepted. Details of these recent decisions will appear in the fourteenth and fifteenth reports. In addition, the CBRC is now evaluating records of a number of species that would increase the state list, including the Arctic Loon (*Gavia arctica*), Solander's Petrel (*Pterodroma solandri*), Townsend's Shearwater (*Puffinus auricularis*), Caribbean Coot (*Fulica caribaea*), Band-tailed Gull (*Larus belcheri*), Black-tailed Gull (*Larus crassirostris*), Iceland Gull (*Larus glaucoides*), Swallow-tailed Gull (*Creagrus furcatus*), Oriental Turtle-Dove (*Streptopelia orientalis*), Alder Flycatcher (*Empidonax alnorum*), Little Bunting (*Emberiza pusilla*), Eastern Meadowlark (*Sturnella magna*), Oriental Greenfinch (*Carduelis sinica*), and Eurasian Tree Sparrow (*Passer montanus*). The most recently published state checklist (*Field List of California Birds* by the CBRC, 1991) contains 578 species (Cave Swallow accepted after publication) and is available from the *Western Birds* circulation manager for $1.00 postpaid.

The list of species and species complexes that the CBRC reviews was published by Roberson (1989) and updated by Langham (1991). In general, the Review List comprises species of which there are fewer than 100 records in California or fewer than 40 records in the state during the most recent 10-year period. At the Committee's 1992 annual meeting held 18 January at Goleta, three species were deleted from the Review List: the Tufted Duck (*Aythya fuligula*), Buff-breasted Sandpiper (*Tryngites subruficollis*), and Red-throated Pipit (*Anthus cervinus*). The CBRC will continue to review records of these species through 1991 (through the winter of 1991/92 for the Tufted Duck), but subsequent reports will not be reviewed. At this meeting the CBRC decided also to maintain a supplemental list of species of uncertain natural occurrence that have been documented in California. Species shall be placed on this list by a majority vote at an annual meeting of the Committee after a given record has completed its normal circulation and was not accepted because the natural occurrence was questioned.

Format. The format of this report is very similar to those of recent Committee reports (Dunn 1988, Bevier 1990, Langham 1991). Records are generally listed chronologically according to first known date of occurrence; exceptions occur in species with many records, including several at the same location, or to allow better understanding of CBRC decisions. Those species names preceded by an asterisk are no longer on the Review List. The total number of CBRC-accepted records through this report is given in parentheses following the species name. For species we no longer review, this number reflects only CBRC-accepted records during the period in which the species was on the Review List. Two asterisks following this number indicate restrictions on the period for which the species has been reviewed or the inclusion of some older reports not formally accepted (see Roberson 1986). Each record includes the locality, a standard abbreviation for the county (see below), and full date spans. In most cases, the dates are from the seasonal reports in AB. Dates differing from those listed in AB are italicized, indicating that we believe ours to be correct. Enclosed in parentheses are the initials of the reporting observer(s), listed in alphabetical sequence by last name and followed by the CBRC record number. If the observer(s) who initially found or identified the bird provided documentation, their initials are listed first and are separated from the other observers' initials by a semicolon. If an observer submitted a photograph, a dagger follows the initials. Specimens are indicated by catalogue number (see below for museum acronyms). Unless indicated by a dagger, a specimen number, or mention of voice or video recordings, all evaluations were based on written documentation of sight reports. When individual birds return to a location after a lengthy or seasonal absence, each occurrence is reviewed under a separate record number, and Committee members indicate whether or not they believe the bird is the same individual as one previously accepted. Such decisions follow the opinion of the majority of Committee members.

All annotations are ours, although the information is often derived from the Committee's files. The CBRC does not specifically review the age, sex, or subspecies of rarities; however, Committee members often provide

comments on the designation of these classes where appropriate. Many of the opinions on age, sex, and subspecies of the individuals assigned in this report reflect those of the Committee as a whole. We have taken the opportunity to comment more thoroughly on the age and sex of passerines, primarily on the basis of information provided by Pyle et al. (1987).

Abbreviations. The Committee has adopted standard county abbreviations; those listed in this report are as follows: ALA, Alameda; CC, Contra Costa; DN, Del Norte; HUM, Humboldt; IMP, Imperial; INY, Inyo; KER, Kern; LAS, Lassen; LA, Los Angeles; MRN, Marin; MEN, Mendocino; MER, Merced; MOD, Modoc; MNO, Mono; MTY, Monterey; ORA, Orange; RIV, Riverside; SAC, Sacramento; SBT, San Benito; SBE, San Bernardino; SD, San Diego; SF, San Francisco; SJ, San Joaquin; SLO, San Luis Obispo; SM, San Mateo; SBA, Santa Barbara; SCL, Santa Clara; SCZ, Santa Cruz; SHA, Shasta; SIS, Siskiyou; SON, Sonoma; STA, Stanislaus; TEH, Tehama; TRI, Trinity; VEN, Ventura; YOL, Yolo. See Langham (1991) for a list of all 58 county abbreviations. Museums that house specimens of records reported here, that have permitted CBRC members access to their specimens or are otherwise cited, are abbreviated as follows: AMNH, American Museum of Natural History, New York; CAS, California Academy of Sciences, San Francisco; HSU, Humboldt State University, Arcata; LACM, Los Angeles County Museum of Natural History; LSU, Museum of Natural Science, Louisiana State University, Baton Rouge; MVZ, Museum of Vertebrate Zoology, University of California, Berkeley; SDNHM, San Diego Natural History Museum; UCSB, University of California, Santa Barbara. Other abbreviations include I., island; L., lake; NM, National Monument; NP, National Park; NS, National Seashore; NWR, National Wildlife Refuge; R., river; SB, State Beach; SR, State Reserve.

ACCEPTED RECORDS

YELLOW-BILLED LOON *Gavia adamsii* (40). An adult in alternate plumage was at Pacific Grove, MTY, 10 Oct 1987 (BSt; 265-1987). The rotting carcass of one recovered from a beach in Monterey, MTY, 24 Dec 1987 (AB; 129-1988) has been preserved as a skeleton (CAS 84051). One found dead on a beach near Trinidad Harbor, HUM, 2 Nov 1988 (ScS; GSL; 267-1988) was made into a life mount and placed in the coffee room of Humboldt State University's Wildlife Building (accession S. W. Harris 1189). One was seen in Crescent City Harbor, DN, 13 Dec 1988 (ADB; 49-1989).

LEAST GREBE *Tachybaptus dominicus* (1). One was present at the Imperial Warm Water Fish Hatchery near Niland, IMP, 19 Nov–24 Dec 1988 (BBr, JLD†, KLG, MJL, CM, GMcC, MAP, DR†, ASm†; 234-1988); a photograph has been published (AB 43:166). This is the second accepted record for California, the first being by McMurry and Monson (1947).

MOTTLED PETREL *Pterodroma inexpectata* (18). Three were seen on 8 Dec 1988 from a research vessel between 102 and 123 nautical miles WSW of Pt. Arena, MEN: one at 37°50'N, 125°58'W (PP; 278-1988), another at 38°58'N, 125°55'W (PP; 279-1988), and the third at 38°21'N, 125°47'W (PP; 280-1988). This species will probably prove to be regular over these offshore waters in winter.

WEDGE-TAILED SHEARWATER *Puffinus pacificus* (2). The second record for California was of a dark-morph individual off the Whitewater R. mouth, N end of the Salton Sea, RIV, 31 Jul 1988 (REW†; GMcC; 150-1988). McCaskie and Webster (1990) published full details; a photograph also appears in AB (42:1225). The first of this species to be found in North America north of Mexico, a light-morph individual, was photographed about 4 nautical miles due W of Pt. Pinos, MTY, on 31 August 1986 (Stallcup et al. 1988).

*WILSON'S STORM-PETREL *Oceanites oceanicus* (102). Up to 16 were seen 2 to 5 miles NW of the Cordell Bank, off Pt. Reyes NS, MRN, 15–16 Aug 1987 (SFB, JM; 236-1987). One was about 30 miles W of San Gregorio, SM, 6 Sep 1987 (JM; 372-1987). Two were midway between San Miguel I. and Pt. Conception, SBA, 18 Sep 1987 (RRV; 270-1988). One was rafting with other storm-petrels on Monterey Bay off Moss Landing, MTY, 4 Oct 1987 (JML; 393-1987). One was in the Santa Barbara Channel, just S of Pt. Conception, SBA, 20 Aug 1988 (RRV; 83-1989). One was about 25 miles W of Pt. Loma, SD, 28 Aug 1988 (GMcC, MAP; 159-1988). One was over the Cordell Bank, MRN, 23 Oct 1988 (KFC; 87-1989). One was at 37°53'N, 123°21'W, 16 nautical miles NNW of N Farallon I., SF, 10 Jun 1989 (PP; 106-1989).

This species is found off the coast of California almost every fall, with most observations on Monterey Bay but the largest numbers reported around the Cordell Bank. One on Monterey Bay on 1 May 1978 (Roberson 1986) and the one listed above for 10 June 1989 are the only individuals recorded in spring. In autumn, birds have been found as early as 13 July and as late as 7 November.

BROWN BOOBY *Sula leucogaster* (22). A sub-adult roosted on the rocks at Pt. Lobos SR, MTY, 15–19 Jun 1988 (PM, MTr; CM, MJL, MAP, DR; 132-1988). An adult was attracted to a boat 2 to 3 miles SE of Santa Barbara I., SBA, 15 Oct 1988 (JKA, KCM†; 77-1989). Most occurrences in California have been at the Salton Sea, but these observations bring to six the number of records for the coast.

RED-FOOTED BOOBY *Sula sula* (8). A subadult of the white morph was observed around fishing boats off Pedro Pt., SM, and at the mouth of San Francisco Bay, SF, 14–20 Aug 1987, and at Pier 45 in San Francisco, SF, during the first two weeks of September 1987 (PB†; SFB, JLD, RAE, MJL, GMcC, JM, CM, DR, LT†, SW†; 224-1987, 39-1988). An immature (one to two years old; see Nelson 1988), photographed on and around fishing vessels between San Francisco Bay, SF, and Pt. Bonita, MRN, 13–18 Oct 1987, was found in a weakened condition at the San Francisco Aquatic Park, SF, and taken to the Marin Wildlife Center for treatment on the last date (Figure 1; MG†; JM†, SEF†, SP†; 275-1987); it never recovered, and was sent to Seattle for permanent care. An immature landed on a research vessel on Monterey Bay off Moss Landing, MTY, 8 Oct 1987, and remained aboard to the entrance of Moss Landing harbor (JK†; 276-1987). Another immature was photographed about 1.5 miles E of Santa Barbara I., SBA, 11 Oct 1987 (KLG†, MCa†, DGu†, ALH†, ASm; 262-1987). A dark immature was photographed about 7 miles W of Santa Catalina I., LA, 15 Nov 1987 (NBB, JLD†, ALH; 361-1987).

An unprecedented number of Red-footed Boobies appeared along the coast of California during the late summer and fall of 1987, more than doubling the number recorded for the state. Birders were alerted to the presence of the first bird off Pedro Pt. by a member of the crew of the *Red Baron*, Peggy Beckett, who contacted the San Francisco Rare Bird Alert by ship-to-shore telephone, then maneuvered her boat to enable birders on Pedro Pt. to see the bird, which was still feeding around the boat.

The plumages of Red-footed Boobies are complex (Nelson 1988). None of the birds listed here were adults, making confident assignment to race or geographical origin impossible with current knowledge. Most Committee members felt that these

birds may have ridden some distance on boats, but since there was no indication that they were restrained, this had no bearing on the acceptability of the records. Photographs of the birds off Pacifica and near Santa Barbara I. have been published in AB (42:18 and 42:128, respectively).

NEOTROPIC CORMORANT *Phalacrocorax brasilianus* (3). An adult was at the Whitewater R. mouth, N end of the Salton Sea, RIV, 20 Jun 1987 and at the Alamo R. mouth, S end of the Salton Sea, IMP, 15–29 Aug 1987 (MAP; GMcC; 231-1987). Single adult Neotropic Cormorants have been seen at various points around the Salton Sea since August 1982, being reported every year through 1987 except 1984. The Committee considers all reports to pertain to one individual (Morlan 1985, Roberson 1986, Dunn 1988, Bevier 1990).

REDDISH EGRET *Egretta rufescens* (22). An adult around S San Diego Bay, SD, 25 Sep 1987–12 Mar 1988 (GMcC, DR; 303-1987) and again 11 Sep 1988–7 Feb 1989 (JLD, GMcC; 190-1988) was the same bird with an abnormal growth on its bill that has been here every winter since 1982–1983 (Roberson 1986, Dunn 1988, Bevier 1990, Langham 1991). An immature frequented the Tijuana R. mouth, SD, 3 Aug–26 Nov 1988 (JLD, GMcC; 191-1988). One around Mission Bay and the San Diego R. mouth, SD, 20 Nov 1988–9 Sep 1989 (GMcC, MAP, DR; 41-1989) molted from immature to adult plumage during its stay.

Reddish Egrets are of annual occurrence along the coast of San Diego Co. but are exceptional elsewhere in California. The Mission Bay bird is the first to have oversummered in California.

YELLOW-CROWNED NIGHT-HERON *Nyctanassa violacea* (12). An adult at the Scripps Institute of Oceanography, La Jolla, SD, 16 Jan–15 Feb 1988 (GMcC, PEL; 81-1988) and 26 Apr–*27 Jul* 1989 (GMcC, DR; 75-1989) was considered the same individual initially found on nearby San Elijo Lagoon in 1981 and seen intermittently there and in La Jolla since (Binford 1985, Morlan 1985, Dunn 1988, Bevier 1990, Langham 1991). This bird was paired with a Black-crowned Night-Heron (*Nycticorax nycticorax*) during the spring of 1989; the two birds built a nest and took turns sitting on it, but no eggs or young were observed.

BLACK-BELLIED WHISTLING-DUCK *Dendrocygna autumnalis* (7). Single adults were near the New R. mouth, S end of the Salton Sea, IMP, 1–4 Aug 1987 (GMcC; 229-1987) and along the S shore of the Salton Sea, IMP, 2–10 Jul 1988 (GMcC; CM, MAP; 134-1988).

All accepted records to date are from the Imperial Valley during the summer and fall, between 28 May and 4 November.

TRUMPETER SWAN *Cygnus buccinator* (14). An adult was with about 3000 Tundra Swans (*C. columbianus*) along Hwy. 12 near Terminous, SJ, 26 Dec 1987 (MJL; 60-1988). Three calling adults were seen in flight at the Lower Klamath NWR, SIS, 12 Feb 1988 (WEH; 295-1988). Two gray first-year birds were studied at the N end of Honey L., LAS, 2–3 Jan 1989 (JTr; TDM; 79-1989).

Recent information on the identification of swans by Tobish (1991) and Bailey (1991) will help in our evaluation of Trumpeter Swan reports, especially those of immatures.

EMPEROR GOOSE *Chen canagica* (41**). One was at Tule Lake NWR, MOD, 6–13 Nov 1987 (BED; 1-1988). One commuted between the Alameda shore and Bay Farm I., ALA, 19 Dec 1987–17 Apr 1988 (SFB, THK, PLaT†, CM, GMcC, JM, SWM†, EM†, MAP, DR†, DLS, RFT†; 398-1987). Because young birds lose much or all of the dark feathering on the head and hindneck in fall, ageing individuals lacking this plumage feature is not recommended.

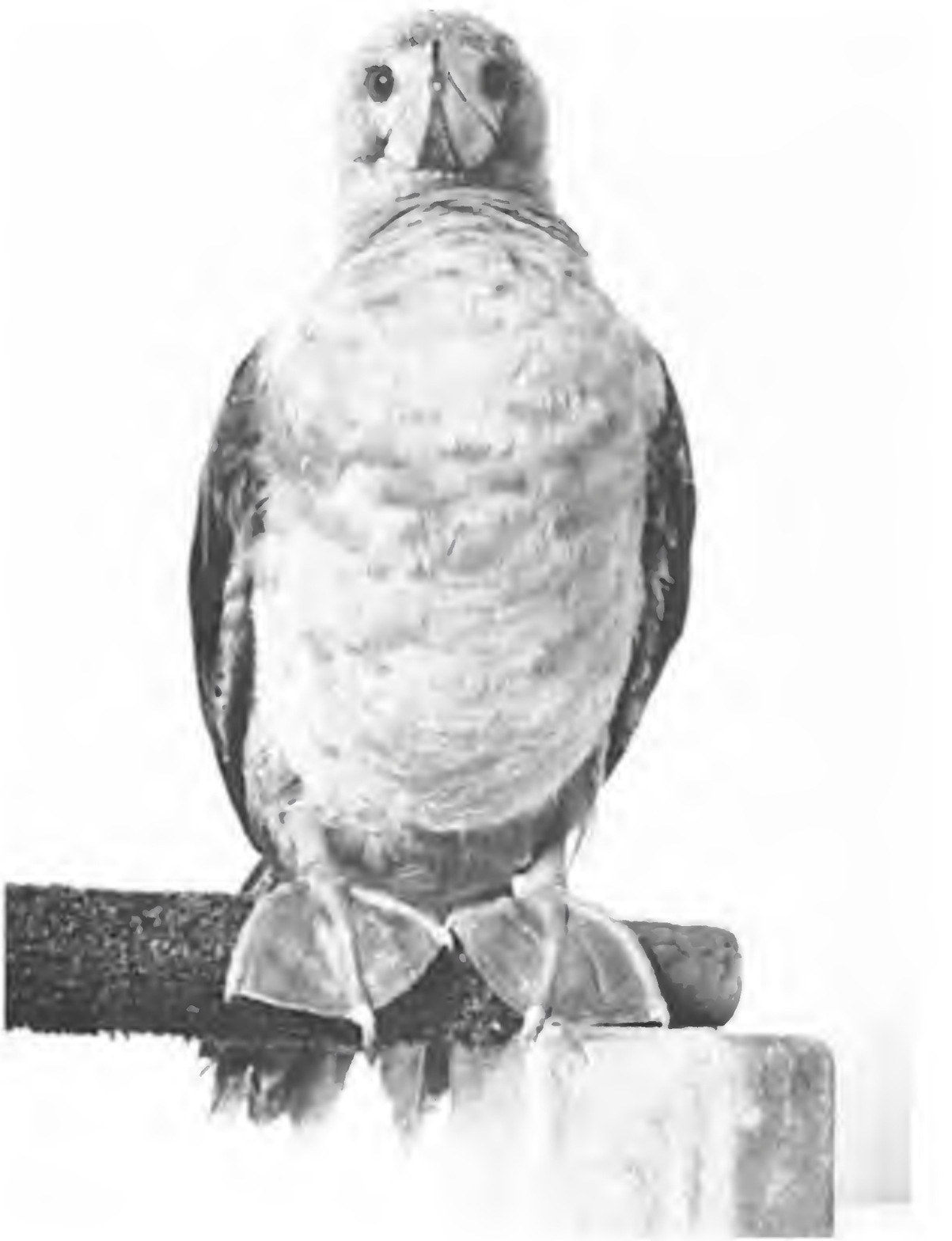

Figure 1. A subadult white-morph Red-footed Booby (275-1987) found in a weakened condition at San Francisco Aquatic Park and brought on 18 October 1987 to the Marin Wildlife Center, where this interesting photograph was taken.

Photo by Joseph Morlan

BAIKAL TEAL *Anas formosa* (5). A male shot by a hunter at Tule Lake NWR, SIS, 14 Oct 1987 (BED†; 175-1988) was made into a life mount and retained in a private collection.

*TUFTED DUCK *Aythya fuligula* (49). A male on Quail L., LA, 19 Nov 1986–5 *Mar* 1987 (KLG, CM, ASm; 15-1987) and again 17 Nov 1987–5 Mar 1988 (KLG; 57-1989) is considered to be the same bird seen here during the winters of 1978–1980, 1983–1984, and 1985–1986 and in nearby Cuddy Valley, KER, 15 Jan 1980 (Binford 1985, Morlan 1985, Roberson 1986). Females were near Petaluma, SON, 28 Feb 1987 (JA; 154-1987) and on Elkhorn Slough near Moss Landing, MTY, 25–27 Mar 1987 (BM; DLS; 91-1987). A male was on L. Cachuma, SBA, 30 Nov–6 Dec 1987 (PEL, JLD; 373-1987), and a female was on this same lake 18 Dec 1987–17 Feb 1988 (CM; SFB, LRBe, JLD†, PEL, GMcC, MAP, DR; 43-1988). Males were on Hesperia Lakes near Victorville, SBE, 6–11 Dec 1987 (SJM; JLD, CM; 3-1988) and at the Smith R. mouth, DN, 24 Jan–14 Feb 1988 (ADB; 100-1988), returning 17 Jan–11 Feb 1989 (ADB; 50-1989). Females were off Belvedere, MRN, 2 Jan 1988 (DAH; 123-1988) and in Arcata, HUM, 16–17 Apr 1988 (SDF†, GSL; 203-1988). A male on the O'Neill Forebay, San Luis Reservoir, MER, 21–23 Feb 1988 (MJL; 209-1988) was considered to be the same bird present here in Feb 1986 (Bevier 1990). A male in San Francisco, SF, 19 Nov 1988–27 Mar 1989 (Figure 2; DM†; SFB, PEL, MMcC, JM, SWM; 257-1988) was accompanied

Figure 2. A male (257-1988) and a female (253-1988) Tufted Duck in San Francisco, 5 February 1989. The identification of the male poses no problem. Because females lack head plumes they can be confused with scaups. Female Tufted Ducks, however, have unform dark brown to blackish backs, show a noticeable contrast between the dark back and the paler flanks, normally have no white around the base of the bill (some individuals show a small amount of white here), and have the bill's black tip separated from the blue-gray of the rest of the bill by a narrow band of white as on the male Tufted Duck, all characters evident in this photograph.

Photo by Mac McCormick

by a female 26 Nov 1988–27 Mar 1989 (Figure 2; JM; SFB, PEL, MMcC, SWM, DM, DR†, MS, RS; 253-1988). A male was on Castaic L., LA, 4 Dec 1988 (KLG; 1-1989). A male on Mallard Reservoir, CC, 31 Dec 1988 (RJR; 80-1989) was considered the same individual present here 27 Dec 1986–3 Jan 1987 (Langham 1991).

This visitor from Asia is now of regular occurrence in winter along the coast, with some returning year after year to the same localities. The birds on Elkhorn Slough and L. Cachuma, however, are the first to be found in Monterey and Santa Barbara counties, respectively, and the species is still unrecorded in most inland counties. The CBRC has discontinued reviewing reports of Tufted Ducks occurring after the winter of 1991–1992.

KING EIDER *Somateria spectabilis* (24). First-year males were at Moss Landing, MTY, 9–*29* Dec 1988 (DEG; SFB, JM, DR†; 259-1988) and at Pomponio SB, SM, 29 Apr–7 May 1989 (JM, RST; 88-1989).

MISSISSIPPI KITE *Ictinia mississippiensis* (19). A subadult was at Huntington Beach, ORA, 5–11 Jun 1989 (JRG†, GMcC, MAP; 92-1989). A color photograph of this bird in flight has been published (AB 43:396). Most records of this species are for late spring, falling between 21 May and 21 June, and most of these have been found inland in Inyo and Mono counties. The Huntington Beach bird is only the second to be accepted from along the coast at this time of the year, although there is an unreviewed June record from Santa Barbara Co. and two other accepted summer records for San Diego Co.

ZONE-TAILED HAWK *Buteo albonotatus* (21). An adult seen over the Plano Trabuco, near Mission Viejo, ORA, 30 Jan–3 Feb 1988 (MAP; 90-1988) was considered to be the same bird present here during the winters of 1985–1986 and 1986–1987 (Bevier 1990, Langham 1991). An adult was near Laguna Beach, ORA, 22–30 Oct 1988 (BBc; BF, GF; 70-1989). A pair on Hot Springs Mt., SD, 4 Jul 1988 (GMcC; 135-1988) was believed to be nesting and was considered the same pair that nested here in 1986 and 1987 (Langham 1991); the Committee lacks information on the full 1988 date span.

GYRFALCON *Falco rusticolus* (4). A first-year bird with a broken wing captured by two hunters near McArthur, SHA, 26 Dec 1987 (BY†; 296-1988) has been retained in captivity at the Los Angeles Zoo. The previous three records of this species are from the northern half of the state as expected, with the first collected near Tule Lake, SIS, 23 Oct 1948 (Jewett 1949), the southernmost photographed E of Dixon, YOL, 17 Jan–8 Feb 1982 (Binford 1985), and the third seen at Tule Lake NWR, SIS, 31 Oct 1983 (Bevier 1990). Two additional mid-winter occurrences in the NE portion of the state are under review by the Committee.

YELLOW RAIL *Coturnicops noveboracensis* (60**). One at the S end of Tomales Bay, MRN, 2–21 Dec 1987 (RS; SNGH, PP; 399-1987), was caught by a Great Egret (*Casmerodius albus*) on the latter date. The retrieved specimen, a female, is now CAS 84063. One captured alive during high tides at the Palo Alto Baylands, SCL, 17 Jan 1988 was taken to an animal shelter, kept for two days, and released at the capture site (Figure 3; JB, JMD†; 78-1988). One was flushed by a hunting dog from a seasonal pond along the N spit of Humboldt Bay S of Samoa, HUM, on 7 and 17 Feb 1987 (DAL; 79-1988).

MONGOLIAN PLOVER *Charadrius mongolus* (3). An alternate-plumaged adult was at Moss Landing Wildlife Area, MTY, 14–16 Aug 1989 (DEG; MAP, RFT†, BJW; 109-1989). A juvenile found at this exact location 13–19 Sep 1980 (Luther et al. 1983) established the first record for California.

EURASIAN DOTTEREL *Charadrius morinellus* (3). A juvenile on the Spalleta plateau, Pt. Reyes NS, MRN, 10–13 Sep 1988 (MJL; SK†, PLaT†; 170-1988) was in the same field of short grass that attracted California's second Eurasian Dotterel 6–9 Sep 1986 (Langham 1991). A superb color photograph of the 1988 bird has been published (AB 43:27).

AMERICAN OYSTERCATCHER *Haematopus palliatus* (9). One photographed on Pt. Loma, SD, 11 Sep 1987 (TEC†; 54-1988) is only the fifth to be recorded on the coast and the third for San Diego Co. One on San Nicolas I., VEN, 12 Sep 1987–11 Nov 1988 (TM; 272-1988) was on the Channel Islands, site of most occurrences in California.

Hybrids between the American and Black (*H. bachmani*) oystercatchers have occurred in southern California; however, both of these birds appeared to be typical of the Baja California race of American Oystercatcher (*H. p. frazari*) as outlined by Jehl (1985).

SPOTTED REDSHANK *Tringa erythropus* (5). A basic-plumaged bird was on Staten I., SJ, 19–20 Nov 1988 (MJL†; BBr, TDM, JM; 260-1988). One in alternate plumage was near Oceanside on the Camp Pendleton marine corps base, SD, 19–23 May 1989 (EKD; DA†, GMcC, MAP; 90-1989); a photograph of this bird appears in AB (43:396).

Figure 3. A Yellow Rail (78-1988) released at the Palo Alto Baylands on 19 January 1988. This photograph clearly shows just how dark a Yellow Rail is, the light bronze color being restricted to the fringes of the blackish feathers. Note how the white on the secondaries can be partially obscured.

Photo by J. M. Danzenbaker

There are now three spring and two fall records for California, one spring and three fall records for coastal British Columbia (Campbell et al. 1990), and a winter record for Oregon (Schmidt 1989), suggesting that this species can occasionally be expected along the Pacific coast of North America at almost any time of year.

TEREK SANDPIPER *Xenus cinereus* (1). A basic-plumaged adult was at Carmel River SB, MTY, 28 Aug–23 Sep 1988 (BRH, EMW; SFB, JLD, WEH†, GWL†, PLaT†, MJL, CM, GMcC, JM, BDP, MAP, DR†, RS†, DLS, RFT, BJW; 160-1988). Full details of this first state record were published by Wilson and Harriman (1989), and photographs were published in AB (43:26). One photographed on Vancouver Island, British Columbia, 21 July–6 August 1987 (Goodwill and Goodwill 1988), one that spent January 1988 at Buenos Aires, Argentina (Pugnali et al. 1988), and one on 23 June 1990 in Massachusetts (Stemple et al. 1991) constitute the only other records of this species from the Americas outside of Alaska.

HUDSONIAN GODWIT *Limosa haemastica* (6). A juvenile at the Carmel R. mouth, MTY, 28 Aug 1988 reappeared at the nearby Salinas R. mouth, MTY, 4 Sep–3 Oct 1988 (SEF; SFB, JLD, HG, WEH†, SLaF, MJL, TM, CM, JM, BDP, MAP, DR†, DS, RFT; 162-1988). Another juvenile was on San Nicolas I., VEN, 5–16 Sep 1988 (TM†; 271-1988).

Although there are only six previous records (two spring and four fall) of this species in California, it occurs somewhat regularly in British Columbia (Campbell et

Figure 4. One of three Ruddy Ground-Doves (249-1988) at Furnace Creek Ranch, Death Valley, 12 November 1988. Note that this female has a dark-tipped gray bill, lacks scaling about the head and neck, and that the black markings on the greater and median coverts form straight lines on the folded wings. The tail is longer than a Common Ground-Dove's.

Photo by Jon L. Dunn

Figure 5. Dusky Warbler (6-1988) on Southeast Farallon Island, 14 October 1988. Note the short tenth primary visible along the leading edge of the wing. Possession of a tenth primary distinguishes the genus *Phylloscopus* from the wood warblers of North America.

Photo by Phil Henderson

Figure 6. Northern Wheatear (64-1989) on Southeast Farallon Island, 6 November 1988.

Photo by Scot Anderson

al. 1990) and has been found in Washington (Roberson 1980) and Oregon (Schmidt 1989), including a flock of 16 at Bayocean Spit, Tillamook Co., Oregon on 17 Aug 1980. This pattern of records may support speculation by Kessel and Gibson (1978) that Alaskan breeders of this species use a trans-Pacific migration route to get to and from wintering grounds in South America.

BAR-TAILED GODWIT *Limosa lapponica* (7). Juveniles were seen at the Salinas R. mouth, MTY, 11 Sep 1988 (SFB; 171-1988) and at Bolinas Lagoon, MRN, 20 Sep 1988 (KHa; 177-1988). Another juvenile was photographed at the marsh at Pescadero SB, SM, 20 Aug–9 Sep 1989 (RST†; GHF, SEF†, AG†, MJL, JM, BDP, MAP, MTa†, FT; 110-1989). Like the preceding species, the Bar-tailed Godwit has been recorded along the entire Pacific coast south to California, with eight fall records for British Columbia (Campbell et al. 1990), at least seven (five fall and two spring) records for Washington (Roberson 1980), and nine (six fall and three spring) records for Oregon (Schmidt 1989).

LONG-TOED STINT *Calidris subminuta* (1). A juvenile was well photographed at the Salinas sewage ponds, MTY, 29 Aug–2 Sep 1988 (BD, MAP; SFB, JLD, GWL†, PLaT†, MJL, GMcC, JM, BDP, KR, DS, DLS, RFT†, JTr†, BRZ†, KJZ; 161-1988). Patten and Daniels (1991) published a full account, including photographs, of this first record for California; other photographs appear in AB (42;1226 and 43:27) and in *Birding* (20:384). This Asiatic breeder had long been considered a likely candidate to reach the state.

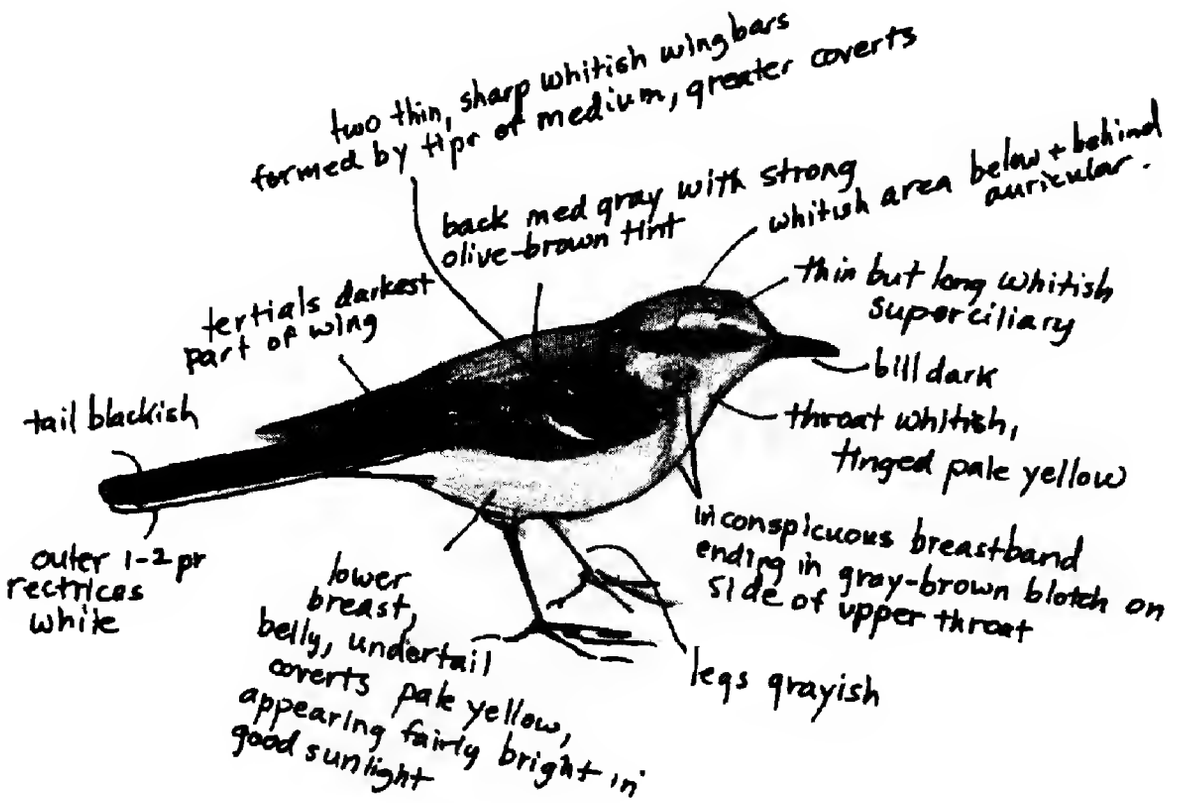
two thin, sharp whitish wingbars formed by tips of medium, greater coverts
back med gray with strong olive-brown tint
whitish area below + behind auricular
thin but long whitish superciliary
tertials darkest part of wing
bill dark
tail blackish
throat whitish, tinged pale yellow
inconspicuous breastband ending in gray-brown blotch on side of upper throat
outer 1-2 pr rectrices white
lower breast, belly, undertail coverts pale yellow, appearing fairly bright in good sunlight
legs grayish

Figure 7. Yellow Wagtail (240-1987) at the Malibu Creek mouth, Los Angeles County, 6 September 1987.

Sketch by Kimball L. Garrett

WHITE-RUMPED SANDPIPER *Calidris fuscicollis* (10). An alternate-plumaged bird was at the Santa Clara R. mouth, VEN, 11–12 Jun 1988 (JSR; NBB, CM, MAP; 149-1988). A photograph of it has been published (AB 42:1226).

CURLEW SANDPIPER *Calidris ferruginea* (13). An adult was at the Salinas sewage ponds, MTY, 10 Jul 1987 (DEG; 222-1987). Most occurrences of this species in California have been in late summer and fall, with the earliest adult being at San Elijo Lagoon, SD, 4 Jul 1981 and the earliest juvenile being at Fort Dick, DN, 28–29 Aug 1981 (Binford 1985).

*BUFF-BREASTED SANDPIPER *Tryngites subruficollis* (55). Two were at Año Nuevo SR, SM, 27–31 Aug 1987 (MAS; SFB, JM; 244-1987). One was on the Spaletta plateau, Pt. Reyes NS, MRN, 6–7 Sep 1987 (DAH, BDP; 241-1987). One was near Santa Maria, SBA, 6 Sep 1987 (A & JC, BP; 374-1987). One was photographed on SE Farallon I., SF, 8–14 Sep 1987 (PH, RDH†; 5-1988). One was at Abbott's Lagoon, Pt. Reyes NS, MRN, 11–24 Sep 1987 (WEH†, JM; 370-1987). One was near Fort Dick, DN, 15–17 Oct 1987 (ADB; 287-1988). One was photographed on Edwards Air Force Base, KER, 5 Sep 1988 (JLD†, JWI†; 164-1988). Two were photographed at L. Talawa, DN, 7 Sep 1988 (ADB†; 63-1989). One was on San Nicolas I., VEN, 5–11 Sep 1988 (TM; 2-1989). Up to nine birds were on the Spaletta plateau, Pt. Reyes NS, MRN, 9–18 Sep 1988 (DAH, MJL, JM, BDP, MAP; 165-1988). One was photographed on L. Shastina, SIS, 16–17 Sep 1988 (MFR; RE†; 61-1989). One was at Hayward Regional Shoreline Park, ALA, 18–19 Sep 1988 (PG; JM, RJR; 219-1988). One was at the Hollister sewage ponds, SBT, 30 Sep 1988 (KVV; 62-1989).

Figure 8. Gray Wagtail (180-1988) at the Salinas River mouth, Monterey County, 10 October 1988.

Photo by Stephen F. Bailey

All records appeared to be of juveniles, as expected in fall. Nine on Pt. Reyes on 12 Sep 1988 was the largest number ever to be found together in California and may have included two or three unsubmitted observations from elsewhere on Pt. Reyes immediately after this date (AB 43:163). The inland records from Siskiyou, San Benito, and Kern counties are notable as most previous individuals have occurred along the coast. Reports of this species (1992 and later) are no longer reviewed by the CBRC.

LITTLE GULL *Larus minutus* (36). One was on Crowley L., MNO, 6 Aug–28 Sep 1987 (JLD†; GMcC, CM; 283-1987); a photograph appears in Gaines (1988, p. 141). A first-winter bird was photographed at the Tulare Lake Drainage District's evaporation ponds near Lost Hills, KER, 27 Sep 1987 (CVP†; 49-1988). One in first-summer plumage was near Salton City, IMP, 8 May 1988 (WDS; 42-1989). An adult was at the Whitewater R. mouth, N end of the Salton Sea, RIV, 13 Sep 1988 (JLD; 242-1988). One in first-winter plumage was photographed on Monterey Bay, MTY, 16 Oct 1988 (DAS; RLB†, RER; 291-1988). An adult on the Lodi sewage ponds, SJ, 16 Nov 1988–*18 Jan 1989* (DGY; 8-1989) was considered the same bird as one seen just to the W of Lodi, SJ, *12 Feb 1989* (AK; 47-1989) and present on the Stockton sewage ponds, SJ, *24 Jan*–2 Apr 1989 (JM; 46-1989). This was also considered one of a maximum of five birds that have been present in Stockton each winter since March 1979 (see Langham 1991).

Figure 9. Yellow-green Vireo (181-1988) at Point Reyes National Seashore, Marin County, 30 September 1988. Note the dull plumage and bright red eye, characteristics of an adult. The large bill, relatively dull superciliary, and lack of a prominent black lateral crown stripe are features useful in distinguishing the adult Yellow-green Vireo from the Red-eyed Vireo.

Photo by Peter LaTourrette

When the Crowley Lake bird was found on 6 August it was clearly molting from first-summer plumage into adult basic plumage and was associating with two summering Bonaparte's Gulls (*L. philadelphia*); thus we assume it had spent the summer at this locality. The Tulare Lake bird is the first to be found in the southern San Joaquin Valley.

COMMON BLACK-HEADED GULL *Larus ridibundus* (13). An adult was at the Hayward Regional Shoreline Park, ALA, 28 Aug 1988 (RJR; 297-1988). There are two previous summer records, of one in Arcata, HUM, 16–23 Jul 1972 (Winter and McCaskie 1973) and another near Manchester, MEN, 18–20 Jun 1984 (Dunn 1988).

LESSER BLACK-BACKED GULL *Larus fuscus* (6). An adult was seen sporadically at the the Alamo R. mouth, S end of the Salton Sea, IMP, 25 Oct 1986–1 Mar 1987 (RH; MJL, GMcC; 29-1987), and a basic-plumaged adult frequented the same place 13 Dec 1986–24 Feb 1987 (GMcC; 28-1987). These two birds had very different head markings, the latter having heavier, more extensive mottling, the former having finer, more restricted streaking. They were seen together on 24 Feb 1987. Photographs of the bird with the fine head markings have been published (AB 41:329); it was possibly the same as one present here 18 Dec 1984–5 Jan 1985 (Dunn 1988) and at the N end of the Salton Sea 14 Sep–5 Oct 1986 (Langham 1991), but the Committee felt it best treated as a separate individual.

PARAKEET AUKLET *Cyclorrhynchus psittacula* (31**). Two were at 38°34′N, 125°41′W, 95 nautical miles W of Pt. Arena, MEN, 8 Dec 1988 (LBS *fide* PP; 281-1988) and another was observed on the same date at 39°15′N, 125°27′W, 78 nautical miles W of Pt. Cabrillo, MEN (PP; 282-1988). A weak-looking bird in alternate plumage was swimming along a current line at 37°01′N, 122°30′W, 11.7 nautical miles WSW of Año Nuevo SR, SM, 6 Jun 1989 (PP; 105-1989). These are the first live birds to be found in California waters since January of 1908, when Rollo H. Beck (1910) collected at least 14 individuals on Monterey Bay. It is possible, however, that this species is at least irregular in winter and early spring in offshore California waters, especially where the outer edge of the California Current mixes with the warmer central Pacific water mass, 50–200 nautical miles from shore (Pyle pers. obs.), an area that has received very little ornithological coverage.

RUDDY GROUND-DOVE *Columbina talpacoti* (9). A male was photographed at China Ranch, near Tecopa, INY, 31 Aug–29 Sep 1984 (JTa†; 231-1988), and a female was photographed there 17–20 Sep 1987 (JTa; JLD†, JML, MJL, CM, MAP; 257-1987). At Furnace Creek Ranch, Death Valley NM, INY, a male was present 17 Oct 1987–4 Jan 1988 (BD; CC, JLD†, CM, GMcC, MAP; 293-1987), another male was present 21 Oct–3 Nov 1988 (GMcC, MAP, DR†; 205-1988), and up to three females were there 3 Nov 1988–2 April 1989 (Figure 4; SFB, JLD†, KLG†, GMcC, SM, MAP, ASc, FT; 249-1988, 250-1988, and 251-1988).

The male photographed at China Ranch established the first accepted record for California; one reported earlier near Fillmore, VEN, was presumed by the CBRC to have been an escapee (Binford 1985), but the record may be recirculated. Photographs of the Furnace Creek Ranch females have been published in AB (43:169) and by Dunn et al. (1990), who provide an excellent account of how to distinguish the Ruddy from the Common (*C. passerina*) Ground-Dove.

BLACK-BILLED CUCKOO *Coccyzus erythropthalmus* (12). First-year birds were banded and measured on SE Farallon I., SF, 26 Aug 1987 (PP†; 246-1987) and at Lamphere Dunes W of Arcata, HUM, 9 Sep 1987 (CJR†; 139-1988). One was seen on Pt. Reyes NS ("New Willows"), MRN, 12–17 Sep 1987 (JM, BDP; 242-1987).

California Black-billed Cuckoos have occurred in fall between 26 Aug and 18 Oct, with most during September. A photograph of the Farallon I. bird, the earliest fall migrant recorded in California, has been published (AB 42:130).

GROOVE-BILLED ANI *Crotophaga sulcirostris* (4). One photographed at Galileo Hill, KER, 14–15 Oct 1988 (JWl†; GHR†, PR; 284-1988) was the northernmost of four thus far recorded in California.

*BARRED OWL *Strix varia* (6). Single birds heard calling near Willow Creek, HUM, 26 Dec 1987 (SDF; 98-1988) and at Howland Hill, near Crescent City, DN, 22 Feb 1989 (ADB; 51-1989) were considered the same birds first found at these locales in 1983 (Binford 1985, Morlan 1985, Bevier 1990, Langham 1991). Two birds, presumably a pair, were heard calling near the S end of Ruth Reservoir, TRI, on twelve nights between 25 Apr 1988 and 13 Jun 1989 (GR; 207-1989). These birds are assumed to be colonizing extreme northwestern California, where there are now several resident birds. The Committee no longer reviews records after December 1989.

CHUCK-WILL'S-WIDOW *Caprimulgus carolinensis* (2). A freshly killed bird was found on a road near Loleta, HUM, *4 Jan 1989* (RAE†; 102-1989). The specimen (HSU 7749) was made into a life mount and displayed in the Wildlife Building at Humboldt State University. Full details were published by Harris and Hawkins (1990).

BROAD-BILLED HUMMINGBIRD *Cynanthus latirostris* (32). An adult male was at Turtle Rock Nature Center, Irvine, ORA, 29–30 Sep 1982 (DRW; 194-1988). First-year males were in Mission Viejo, ORA, 30 Nov–12 Dec 1987 (DRW; JLD, GMcC; 50-1988), and Ventura, VEN, 22 Nov 1987–4 Mar 1988 (VJK†; SFB, LRBe, JLD†, THK, PEL†, CM, GMcC, MAP, DR, JSR; 45-1988). A female was at the same site in Ventura, VEN, 31 Jan–4 Mar 1988 (GMcC; THK, CM, MAP; 72-1988).

XANTUS' HUMMINGBIRD *Hylocharis xantusii* (2). An adult male was at Yaqui Well, Anza–Borrego SP, SD, 27 Dec 1986 (RK; 174-1987). A female was in Ventura, VEN, 30 Jan–27 Mar 1988 (KHb, JSR; SFB, LRBe†, JLD†, KLG, VJK†, THK, PEL†, CM, GMcC, MAP, DR, ASm†; 65-1988). Full details of these records are published elsewhere in this issue.

VIOLET-CROWNED HUMMINGBIRD *Amazilia violiceps* (2). One at a feeder in Bouquet Canyon, near Saugus, LA, 25–29 May 1987 (JLD, KLG, JML, CM, GMcC, MAP, ASm†; 143-1987) was the second to have occurred in California, the first having been at a feeder in Santa Paula, VEN, between 6 July and late December 1976 (Johnson and Ziegler 1978). There was no question as to the specific identity of this bird, but one Committee member felt the nominate southern race could not be excluded and was therefore unwilling to consider the bird positively a genuine vagrant. Photographs later obtained by the Committee, however, show that the coloration on the upper side of the tail was not bronzy or copper as is typical of nominate *violiceps* (S. N. G. Howell pers. comm.). A color photograph of this bird has been published (AB 41:380).

RED-HEADED WOODPECKER *Melanerpes erythrocephalus* (3). An adult was present in Winchester Canyon, Goleta, SBA, 14 Sep 1988–23 Apr 1989 (KB; SFB, DC†, JLD†, KLG, PEL†, MJL, CM, GMcC, MAP, DR†; 168-1988); photograph published (AB 43:53). An adult near Niland, IMP, 17 Jul–22 Aug 1971 (Cardiff and Driscoll 1972) and another on Pt. St. George, DN, 9 Jun 1986 (Bevier 1990) are the only previous accepted records for the state; a report of one found dead near La Puente, LA, 20 May 1962 (Marqua 1963) is currently being reviewed.

GREATER PEWEE *Contopus pertinax* (21). One at the San Diego Zoo, San Diego, SD, 20 Feb–30 Mar 1988 (GMcC; 92-1988) returned to the same eucalyptus grove the following winter, 6 Dec 1988–*1 Mar* 1989 (GMcC, MAP; 5-1989).

YELLOW-BELLIED FLYCATCHER *Empidonax flaviventris* (4). A first-year bird was caught, banded, and carefully measured on SE Farallon I., SF, 3–5 Sep 1986 (PP†; 56-1987). One was seen and photographed in Carpinteria, SBA, 16–17 Oct 1987 (PEL; LRBa, CDB, CB, JAJ, JEL, RM, CM, JSR, LS†, ASm; 261-1987).

Both of these records were accepted by the Committee on the second round. Minor concerns about the Farallon bird during the first round included the fact that the wing formula (Phillips et. al. 1966) suggested that the bird was a male whereas the wing and bill lengths were small, suggesting a female, that the difference between the wing and tail lengths of 11 mm was 1 mm shy of a published range (12–20 mm; Pyle et. al. 1987), and that the bird may have been a Cordilleran Flycatcher (*E. occidentalis*), which at the time had not yet been split from the Pacific-slope Flycatcher (*E. difficilis*; A.O.U. 1989) and was not as well known by Committee members. During second-round comments it was pointed out that the published measurements were based on specimens and might differ slightly from those obtained on live birds, and that Pacific-slope and Cordilleran flycatchers are similar if not identical to each other in the plumage characteristics useful in separating them from the Yellow-bellied Flycatcher. Plumage features charcteristic of the Western Flycatcher (*Empidonax difficilis* in the broad sense) include olive or brownish tones to the upperparts, a prominently almond-shaped eye ring that is weak or broken above the eye, mustard-colored underwing linings, duller yellow underparts without the appearance of an olive breast band, and, especially in the immature, brownish wings with buffy feather edges and wing bars. The Farallon and Carpinteria birds, like fall Yellow-bellied Flycatchers, had greener upperparts, rounder eye rings that were full above the eye, lemon-yellow underwing linings, generally brighter yellow underparts with diffuse olive breast bands, and black wings contrasting markedly with bright lemon feather edges and wing bars.

On the basis of these characteristics, Committee members were satisfied that the Carpinteria bird was not a Western Flycatcher, but the question arose whether or not a fall first-year Acadian Flycatcher (*E. virescens*) had been adequately eliminated. Outside reviewer Steven W. Cardiff provided a lengthy analysis based on examination of the specimen collection at LSU, cautioning the Committee that none of the noted characteristics on its own eliminated the Acadian Flycatcher. Most Committee members agreed with this analysis but felt that the combination of all characters ruled out Acadian to their satisfaction, as did outside reviewers Kenn Kaufman, Greg W. Lasley, Bret Whitney, and Alan Wormington. With such difficult identifications it is always best to synthesize all criteria simultaneously. The Committee especially thanks the outside reviewers for their input on this record.

The Farallon bird was the third and earliest for the island and for California (see DeSante et al. 1985 for details on the previous two); the Carpinteria bird was the first for mainland and southern California.

DUSKY-CAPPED FLYCATCHER *Myiarchus tuberculifer* (15). One wintered in Mission Viejo, ORA, 21 Nov 1987–3 April 1988 (JLD, CM, GMcC, MAP, DRW†; 375-1987). One along the Alamo R. near the S end of the Salton Sea, IMP, 22–30 Dec 1987 (JLD, CM, GMcC, MAP; 44-1988) was the first record for Imperial County. One was near Aptos, SCZ, 21 Jan–10 Mar 1988 (DLS; MJL, DR; 61-1988). One was in Balboa Park, San Diego, SD, *16 Feb*–7 Apr 1988 (GMcC; 91-1988).

These four records continue to support the winter pattern of occurrence of this species in California. All 15 accepted individuals have been found between November and March.

GREAT CRESTED FLYCATCHER *Myiarchus crinitus* (24). Individuals were observed on SE Farallon I., SF, 13 Oct 1970 (DDeS; 17-1989), 18 Sep 1971 (DDeS; 18-1989), and 27 Sep 1974 (DDeS; 19-1989). One was in Arcata, HUM, 13 Oct 1978 (SWH; 214-1987). One was on Pt. Loma, SD, 25 Sep 1987 (GMcC; 288-1987). One was at Pismo SB, SLO, 6–7 Oct 1987 (JLD, PEL, CM, DR, KJZ†; 253-1987). One was at the Carmel R. mouth, MTY, 9 Oct 1988 (MCM; 218-1988).

The bird at Pismo SB, a photograph of which appeared in AB (42:137), was only the 5th of 24 accepted individuals in California to have been observed at the same locale for more than one day.

THICK-BILLED KINGBIRD *Tyrannus crassirostris* (7). The bird at Peters Canyon, near Lemon Heights, ORA, returned for its fifth and sixth winters, 4 Nov 1987–5 Mar 1988 (MAP; 89-1988) and 29 Nov 1988–5 Mar 1989 (GMcC; 74-1989). It has previously been accepted by the Committee as having occurred each winter since 1982–1983 (Morlan 1985, Bevier 1990).

SCISSOR-TAILED FLYCATCHER *Tyrannus forficatus* (49). A molting adult was at Ramer L., Imperial Valley, IMP, 29 Aug 1987 (GMcC; 280-1987). Adult males were at Furnace Creek Ranch, Death Valley NM, INY, 24 Oct 1987 (PEL; JLD, CM, GMcC; 295-1987), at Moss Landing Wildlife Area, MTY, 21–22 Jul 1988 (BN; CS†; 157-1988), and near Arroyo Grande, SLO, 17–26 Aug 1988 (VH; JLD†, MAP; 158-1988).

It is interesting that all four of these individuals were adults, the July and August birds being worn and the October bird being fresh. This species typically molts on its winter grounds, suggesting that the worn birds were southbound migrants whereas the October bird may have molted locally or was an early winter wanderer.

DUSKY WARBLER *Phylloscopus fuscatus* (3). A first-year individual was captured, banded, and carefully measured on SE Farallon I., SF, 14 Oct 1987 (Figure 5; DBe, PH†; 6-1988). Remarkably, this is the third record of this Siberian vagrant in the state and second for SE Farallon I. See Madge (1987) and Round (1988) for recent information on the identification of this species.

NORTHERN WHEATEAR *Oenanthe oenanthe* (4). One was well seen and photographed between Orland and Kirkwood, TEH, 13–15 Oct 1988 (SFB, JLD†, EH, CM, GMcC, JM, BDP, MAP, DR†; 197-1988). Another was photographed on SE Farallon I., SF, 6–10 Nov 1988 (Figure 6; SA†, PH; 64-1989).

These are the first records for California since 1977 and the second and third fall records; a photograph of the Tehama County bird appears in AB (43:164). It was not possible to determine the age or sex of either bird, except that relatively pale plumage indicated that they were not adult males (Svensson 1984). The Committee also felt it best not to speculate on the race of either bird. The nominate race breeding across Eurasia and in Alaska would be expected, but the only infallible way to distinguish immatures and females in basic plumage from those of the Greenland race (*O. o. leucorhoa*) is by measurements (Cramp and Simmons 1988). A reassessment of the 11 June 1971 specimen from SE Farallon I. (Manuwal and Lewis 1972) based on measurements published by Cramp and Simmons (1988) indicates that this bird was of the nominate race (J. Morlan in litt.).

VEERY *Catharus fuscescens* (7). One was observed at the lighthouse on Pt. Reyes NS, MRN, 15 Oct 1988 (DDeS; 292-1988).

GRAY-CHEEKED THRUSH *Catharus minimus* (7). A first-year individual of the nominate race was banded and measured on SE Farallon I., SF, 17–18 Oct 1987 (JC; PH†; 7-1988).

GRAY CATBIRD *Dumetella carolinensis* (41). One was at Snow Creek Village, near Cabazon, RIV, 23 Sep 1987 (TJG; 51-1988). One was at Scottys Castle, Death

Valley NM, INY, 16 Oct 1987 (JLD; GMcC; 292-1987). One was at Rancho Palos Verdes, LA, 16–18 Oct 1987 (JKA; 363-1987). One was at Furnace Creek Ranch, Death Valley NM, INY, 7–8 Nov 1987 (MTa†; JLD, KLG, GMcC; 376-1987). One was seen at Los Osos, SLO, 14 Feb 1988 (MCo; 142-1988). Individuals were found at Cabrillo NM, Pt. Loma, SD, 11–17 Jul 1988 (GMcC, MAP; 136-1988) and 3–26 Oct 1988 (EEP; GMcC, MAP; 192-1988 and 222-1988). One was at Furnace Creek Ranch, Death Valley NM, INY, 21–22 Oct 1988 (GMcC, MAP, DR; 206-1988). One was at Paso Picacho Campground in the Cuyamaca Mts., SD, 29 Oct 1988 (DA; 71-1989).

The July bird at Cabrillo NM was molting and may have summered locally. The second bird at this heavily birded locality was seen very intermittently, prompting speculation that there was more than one individual. Because the species is secretive and the bird was always observed in the same area, the Committee decided by an 8–2 vote that observations on 3 and 9 October 1988 (192-1988) and 21–26 October 1988 (222-1988) were most likely of the same bird. That all nine of these records are for southern California is not surprising; only nine of the 41 accepted Gray Catbirds have been in northern California.

YELLOW WAGTAIL *Motacilla flava* (7). One was at the Malibu Creek mouth, LA, 6 Sep 1987 (Figure 7; WC; JKA†, NBB, KLG†, RCR; 240-1987). Unlike previous Yellow Wagtails in California, this bird had bright yellow underparts and lacked extensive streaking on the upper breast, suggesting that it may have been an adult male in basic plumage (see Svensson 1984, Cramp and Simmons 1988; pertaining to the European races). Because the plumage of each age/sex class varies with race, and the race of this bird could not be determined, the Committee felt it best not to specify this bird's age or sex until more is known about variation in the eastern Palearctic subspecies of the Yellow Wagtail.

GRAY WAGTAIL *Motacilla cinerea* (1). California's first was observed and photographed at the Salinas R. mouth, MTY, 9–10 Oct 1988 (Figure 8; DAS; SFB†, JLD, SEF†, MJL, GMcC, JM, MAP, DR†, RS†; 180-1988). This represents the first North American record of this species S of the outer Aleutian and St. Lawrence islands, Alaska; there is a sight report from the Northwest Territories (AOU 1983). The Gray Wagtail's occurrence in California was not entirely unexpected given the tendency of other Siberian wagtails to occur along the Pacific coast. The Committee could not ascertain this individual's race, age, or sex, although the brightness of the plumage suggested either a first-year male or an adult female, and the short tail (relative to the European race) suggested the expected Siberian form, *M. c. robusta*.

WHITE WAGTAIL *Motacilla alba* (2). An adult, probably a male, wintered at Oxnard, VEN, 22 Nov 1987–6 Mar 1988 (JSR; JKA, LRBa, NBB, JLD†, CM, GMcC, MAP, DR; 362-1987) and returned to the same locality 16 Oct 1988–4 Mar 1989 (JLD, GMcC; 248-1988). A photograph was published in AB (42:322). The prominent black eyeline and grayish back indicate the expected race *M. a. ocularis* of the eastern Palearctic and Alaska (Morlan 1981, in litt.).

BLACK-BACKED WAGTAIL *Motacilla lugens* (4). An adult was well studied at Port Hueneme, VEN, 2 Aug–7 Sep 1987 (JKA†, JLD, KLG, MJL, CM, GMcC, MAP; 230-1987).

*RED-THROATED PIPIT *Anthus cervinus* (59). One was at Furnace Creek Ranch, Death Valley NM, INY, 19–20 Sep 1987 (JLD; MJL, CM, MAP; 258-1987). Separate individuals were found at Goleta, SBA, 6 Oct 1987 (JLD; 378-1987), 15 Oct 1987 (HPR; 379-1987), 2–3 Oct 1988 (SEF; PEL; 210-1988), 8 Oct 1988 (HPR; 273-1988), 9 Oct 1988 (PEL, GMcC; 199-1988), and 17–27 Oct 1988 (JLD; 244-1988). One to two birds were in the Tijuana R. valley, SD, 7–10 Oct 1987 (GMcC; 289-1987). One was near Morro Bay, SLO, 9–17 Oct 1987 (CM;

JLD, PEL, KJZ; 377-1987). One was at Virgin Creek SB, MEN, 10–13 Oct 1987 (KFC; BK†; 173-1988). One at the Carmel R. mouth, MTY, 11 Oct 1987 (JML; 394-1987) is previously unpublished. One was at the Salinas R. mouth, MTY, 3 Oct 1988 (GHR; 184-1988). Individuals visited SE Farallon I., SF, 6–7 Oct 1988 (PP†; 212-1988) and 27 Oct 1988 (PP†; 286-1988). One was near Oxnard, VEN, 11–15 Oct 1988 (JSR; 85-1989). A bird at the Santa Maria R. mouth, SBA, 16 Oct 1988 (PEL; 274-1988) was flushed into San Luis Obispo County, and another was found 2 miles up the Santa Maria R., SBA, 45 minutes later (PEL; 275-1988). One was observed from a research vessel 69 nautical miles SW of San Miguel I., SBA, 21 Oct 1988 (RRV; 84-1989). Two were found in the Tijuana R. valley, SD, *23* Oct 1988 (GMcC; 223-1988).

The bird at Furnace Creek Ranch was only the second to be recorded away from the coast in California; the first, at the same locale on 5 Oct 1985, was recently accepted. Unprecedented numbers were detected along the coast during the falls of 1987 and 1988, in part reflecting the increased ability of birders to discover this species by its distinctive call note. Several of the records above were based entirely or almost entirely upon this vocalization, as described by observers familiar with the call and those of similar-sounding species. All 59 accepted records fall between 9 September and 17 November. The CBRC has discontinued reviewing records of this species after 1991.

SPRAGUE'S PIPIT *Anthus spragueii* (20). One was at Goleta, SBA, 5 Oct 1987 (CDB; JLD; 380-1987). One on SE Farallon I., SF, 16 Oct 1987 (JC; PH; 8-1988) was only the third for northern California, all at this locale.

WHITE-EYED VIREO *Vireo griseus* (15). One was at Carpinteria, SBA, 21–30 Oct 1987 (RPH; JLD†, PEL†, CM, GMcC, MAP; 296-1987). One at Glass Creek near Mammoth Lakes, MNO, 2 Sep 1988 (WDS; 43-1989) is previously unpublished. One was on Pt. Loma, SD, 16–25 Oct 1988 (GMcC, MAP, EEP; 200-1988).

These are the first accepted fall records for the state. By eye color the Glass Creek bird was an adult, the other two were first-year birds. The early date for the Glass Creek bird along with its age suggests that it may have summered locally, as did one seen at Goleta, SBA, 18 May–14 Sep 1982 (Morlan 1985).

YELLOW-THROATED VIREO *Vireo flavifrons* (30). A singing male found at Nicasio, MRN, 31 May 1987 (JE; 121-1988) is previously unpublished. One was by Mono L., MNO, 26 Aug 1987 (ES; 277-1987). One was at Goleta, SBA, 18–19 Nov 1987 (CDB, JLD, PEL†, CM; 381-1987). One was at Scotty's Castle, Death Valley NM, INY, 19 May 1988 (BD; 145-1988). One was near Oxnard, VEN, 24 Sep 1988 (JSR; 86-1989).

PHILADELPHIA VIREO *Vireo philadelphicus* (64). One was on SE Farallon I., SF, 14 Sep 1977 (RLeV; 6-1989). One was at the lighthouse on Pt. Reyes NS, MRN, 26 Sep 1980 (DDeS; 12-1989). One was in the Tijuana R. valley, SD, 23–29 Oct 1987 (GMcC; 297-1987). One was at Pismo SB, Oceano, SLO, 1 Nov 1987 (TME; CM; 2-1988). One was observed and tape-recorded singing in Golden Gate Park, SF, 15–17 June 1988 (SFB, JM, SWM, RR; CAS recording CBRC-5; 130-1988). One was near the lighthouse on Pt. Reyes NS, MRN, 22 Sep 1988 (SPC; 216-1988). One was at Carmel, MTY, 3 Oct 1988 (DAS; JLD; 243-1988). One was at Huntington Beach, ORA, 5–6 Oct 1988 (MAP, DRW; 254-1988).

YELLOW-GREEN VIREO *Vireo flavoviridis* (24). One was in Big Sycamore Canyon, VEN, 21 Sep–5 Oct 1987 (NM; JLD†, KLG†, PEL, CM, GMcC, BP, MAP, JSR; 287-1987). One was at Goleta, SBA, 24 Sep 1988 (HPR; 276-1988). One was in the Tijuana R. valley, SD, 25–26 Sep 1988 (GMcC; 189-1988). An adult was at the Nunes ranch, Pt. Reyes NS, MRN, 30 Sep 1988 (Figure 9; PLaT†; 181-1988). One was at Irvine, ORA, 1 Oct 1988 (GMcC, MAP; 188-1988). One was at

Pacific Grove, MTY, 9–12 Oct 1988 (SEF†; DR, RFT†; 183-1988). One was at La Jolla, SD, 21–23 Oct 1988 (GMcC; 221-1988). One was on SE Farallon I., SF, 25 Oct 1988 (PP†; 285-1988).

The seven during fall 1988 represent the highest annual total so far recorded in California; the next highest was four in 1982. The bird on Point Reyes was the first adult reported from California.

BLUE-WINGED WARBLER *Vermivora pinus* (9). One was near Finney L., IMP, 13 Sep 1988 (JLD; 241-1988). One was at Long Beach, LA, 17–18 Sep 1988 (JKA, SHD, KLG, KJ; 176-1988).

Both birds were reported as males (AB 43:170) because of their bold black eye lines and extensive yellow crowns with the green of the upperparts extending only to the extreme hind nape. The age/sex classes of this species are not distinct; rather, as in many passerines, the plumage of each class overlaps with another's so that there is continuous variation from the dullest first-year females to the brightest adult males. Both descriptions indicate bright birds that were probably males but possibly adult females.

GOLDEN-WINGED WARBLER *Vermivora chrysoptera* (32). A male was found along DeChambeau Creek, near Mono L., MNO, 16 Aug 1987 (JHH; 278-1987). A female was at Mojave, KER, 21–22 May 1988 (JLD, MF, CM; 140-1988). Males were at Newport Beach, ORA, 30 Sep–1 Oct 1988 (GMcC, MAP, DRW; 187-1988) and Irvine, ORA, *26*–30 Oct 1988 (DRW; JLD; 245-1988).

YELLOW-THROATED WARBLER *Dendroica dominica* (55). One was on SE Farallon I., SF, 16–19 Sep 1974 (DDeS; 13-1989). One was near Murrieta, RIV, 8 Sep 1987 (JH; IPL; 285-1987). One was at Stinson Beach, MRN, 29 Nov 1987 (KHa; RS; 59-1988). Singing males were at California City, KER, 28 May 1988 (WC, GT; 120-1988) and near Trinidad, HUM, 14 Jun 1989 (KI; GSL; 95-1989).

The Stinson Beach bird had a large bill and extensive yellow in the supraloral zone and thus was of either the nominate race or the poorly defined and local race *D. d. stoddardi*. This is only the third confirmed record of a "yellow-lored" bird in the state, the previous two also being for late fall or winter (Craig 1972, Dunn 1988). One of these was of a bird that wintered in 1984–1985 at Olema, just 13 miles N of Stinson Beach (Dunn 1988). The Farallon and Murrieta birds were seen to have white above the lores, indicating the subspecies *D. d. albilora*. The other two individuals were likely *albilora*, as suggested by the descriptions and the fact that all previous spring Yellow-throated Warblers in California have been of this race. Although *albilora* can have small amounts of yellow above the lores, this area is mostly white, as opposed to mostly yellow in the nominate race. As with the Blue-winged Warbler, the Yellow-throated Warbler's plumage varies continuously with age and sex.

GRACE'S WARBLER *Dendroica graciae* (20). Individuals returned to winter at Montecito, SBA, 4 Oct–10 Dec 1987 (JLD, PEL, BDP; 273-1987) and at Ventura, VEN, 25 Oct 1987–25 Mar 1988 (LRBa, MAP; 87-1988). One was found at La Jolla, SD, 13 Feb–4 Apr 1988 (PEL, CM, GMcC; 82-1988). A singing male was found on Santa Cruz I., SBA, *22* Mar 1988 (HPR; MAH; 116-1988).

This was the ninth and last winter for the Montecito bird (accepted all eight previous winters: Binford 1985, Roberson 1986, Dunn 1988, Bevier 1990, Langham 1991) and the fourth winter for the Ventura bird (accepted previously: Dunn 1988, Bevier 1990, Langham 1991). The Santa Cruz I. bird was supposed by some members to have wintered on the island because 22 March is too early for a migrant, but in most years the Montecito and Ventura birds were last reported from late February through March, so the date itself is not conclusive.

PINE WARBLER *Dendroica pinus* (34). First-year females were near Briceland, HUM, 25 Sep 1985 (RWS; 218-1987), at the Mendoza ranch, Pt. Reyes NS, MRN, 15–17 Oct 1987 (RS; AG†, JML, JM; 268-1987), in the Tijuana R. valley, SD, 1 Nov 1987 (GMcC; 299-1987) and 22–23 Oct 1988 (GMcC, MAP; 224-1988), at Gaviota SB, SBA, 5 Nov 1987 (PEL; 382-1987), and at Ackerson Meadow, TUO, 22 Nov 1987 (JWn; 391-1987). First-year males or adult females were at Riverside, RIV, 1 Oct 1987 (DGo; GA; 52-1988) and on SE Farallon I., SF, 18–19 Nov 1987 (PH†; 9-1988). A first-year male at Morro Bay SP, SLO, 19 Dec 1987–*29* Mar 1988 (JSR; CM†, MAP; 4-1988), was frequently heard singing before its departure. First-year males or adult females were on Pt. Loma, SD, 24–25 Oct 1988 (GMcC; 225-1988) and in Presidio Park, San Diego, SD, 6–7 Nov 1988 (GMcC; 228-1988). A female, probably first-year, was at Hope Ranch, Santa Barbara, SBA, 31 Dec 1988–28 Feb 1989 (JLD, KLG, PEL, CM, GMcC, MAP, DR; 4-1989).

The Briceland bird was previously unpublished. Although there is overlap in the plumage of this species' age/sex classes, most individuals can be recognized in the field as either first-year females, first-year males/adult females, or adult males by the brightness and amount of green and yellow in their plumage and the distinctness of the streaking on their underparts.

CERULEAN WARBLER *Dendroica cerulea* (10). A first-year male was on the campus of the University of California, Irvine, ORA, 1–3 Oct 1988 (PEL, GMcC, MAP; 186-1988).

*PROTHONOTARY WARBLER *Protonotaria citrea* (73). One was along the coast at San Francisco, SF, 30 Aug 1969 (RWS; VGD; 232-1987). One was at the Whitewater R. mouth, N end of the Salton Sea, RIV, 3 Sep 1987 (DLD; 281-1987). One was at the New R. mouth, S end of the Salton Sea, IMP, 5 Sep 1987 (MCM; 53-1988). One was at Furnace Creek Ranch, Death Valley NM, INY, 5–11 Sep 1987 (JLD†, GMcC, GHR†; 284-1987). A singing male was found at Oasis, MNO, 22 May 1988 (NBB, MAP; 146-1988). One was at Morro Bay, SLO, 4 Sep 1988 (GPS; 236-1988). One was at the lighthouse on Pt. Reyes NS, MRN, 29 Sep 1988 (SPC; 217-1988). One was at Pismo SB, Oceano, SLO, 12 Nov 1988 (MTH; 72-1989).

The Prothonotary Warbler resembles the Blue-winged Warbler in that the age/sex classes overlap in the amount of green wash on the nape and crown. Unlike Blue-winged Warblers, however, Prothonotary Warblers can be reliably sexed by the amount of white in the tail. Males typically have five rectrices on each side of the tail with white patches, whereas females have two or three such rectrices on each side, and the white patches on the rectrices are larger in males than in females (see Pyle et al. 1987). Once a Prothonotary is sexed in the field by the white in the tail, its age might be inferred by the amount of green on the nape and crown. Records of this species (1990 and later) are no longer reviewed by the CBRC.

WORM-EATING WARBLER *Helmitheros vermivorus* (49). Individuals were banded and measured at Lamphere Dunes, W of Arcata, HUM, 3–7 Dec 1982 (CJR†; 138-1988), and on SE Farallon I., SF, 16 Oct 1987 (PH†; 10-1988). Wintering individuals were found on Pt Loma, SD, 17 Oct 1987–27 Feb 1988 (CM, GMcC; 298-1987) and at Huntington Beach, ORA, 21 Oct 1987–3 Feb 1988 (JLD, CM, GMcC, MAP; 294-1987). One was at the Carmel R. mouth, MTY, 25 Oct–3 Nov 1987 (DR, BJW; 264-1987). One was near Morro Bay, SLO, 19 Dec 1987–31 Jan 1988 (MTH; SFB, JLD, CM, MAP, DR; 64-1988). One was found at Malibu, LA, 20 Dec 1987 (HB; 107-1988). One was at Pacific Grove, MTY, 21 Mar–*15* Apr 1988 (KS†; 109-1988). One was at Irvine, ORA, 11 May 1988 (DRW; 148-1988). One was at Pt. Reyes NS ("Road Forks Pool"), MRN, 9 Sep 1988 (PP, RS†; 167-1988). One was at Oasis, MNO, 2–*12* Nov 1988 (SFB, JLD, KLG†; 238-1988). One was at Half Moon Bay, SM, 3 Dec 1988 (DJK; 262-1988).

A photograph of the Huntington Beach bird appears in AB (42:138).

KENTUCKY WARBLER *Oporornis formosus* (44). Males were captured by cats and eventually died at Claremont, LA, 9 May 1985 (KLG, DGu†; LACM 104915; 133-1988) and, previously unpublished, at Mammoth Lakes, MNO, 15 June 1985 (DAG; CAS 84059; 256-1988). A second-year male was banded and measured on SE Farallon I., SF, 14–17 July 1987 (PP†; 247-1987). A male was near Mono L., MNO, 13 Aug 1987 (DAG; 279-1987). An adult female was banded and measured near Alviso, SCL, 18–27 Sep 1987 (LRM†; 272-1987). On SE Farallon I., SF, a female was present 17 Jun 1988 (PP†; 154-1988) and a first-year male was banded and measured 9–10 Sep 1988 (SFB†; 300-1988). An immature female was at the Pt. Loma lighthouse, SD, 12 Oct 1988 (JNW; REW; 50-1990). A male was at Butterbredt Springs, KER, 19–21 May 1989 (GMcC, MAP; 91-1989).

The July bird on SE Farallon I., although originally thought by the observer to be a female (AB 41:1485), was later judged a worn 2nd-year male after a reevaluation of the photograph. Sexing this species in the field can be difficult as the plumage of first-year males approaches that of adult females, although there is little if any overlap between these two age/sex classes. The Mono Lake record was the last description received from the late David Gaines; the Committee wishes to acknowledge the many contributions of this excellent field observer to the CBRC and to California ornithology.

CONNECTICUT WARBLER *Oporornis agilis* (37). A first-year female was banded and measured near Alviso, SCL, 2 Sep 1987 (LRM†; 271-1987). Birds banded and measured on SE Farallon I., SF, were an adult female 21–24 Sep 1987 (RAE, PH†; 11-1988) and a first-year female 12 Oct 1987 (PH†; 12-1988). One was at Big Sycamore Canyon, VEN, 27 Sep 1987 (PEL; LS†; 383-1987). One was at the lighthouse on Pt. Reyes NS, MRN, 9 Oct 1987 (RS; 58-1988). One was at Montana de Oro SP, SLO, 23–25 Sep 1988 (GPS; JLD, PEL, MJL, GMcC, MAP; 178-1988).

Photographs of the two Farallon birds appear in Pyle and Henderson (1990). Ageing and sexing fall females and immatures of this species in the field, by plumage alone, is not feasible (Pyle and Henderson 1990).

MOURNING WARBLER *Oporornis philadelphia* (49). Individuals were banded and measured on SE Farallon I., SF, 27–28 Aug 1987 (PP†; 248-1987, probably a male), 13 Sep 1987 (two birds, both PH†; 13-1988, probably a female, and 14-1988, a male), 13 Oct 1987 (PH†; 15-1988, probably a male); 14–15 June 1988 (PP†; 153-1988, a male), 30 Aug 1988 (PP†; 166-1988, a female), and 8–11 Sep 1988 (SFB†; 299-1988, a male). Others were found at Goleta, SBA, 15–16 Sep 1988 (PEL; LRBa; 277-1988) and at the Carmel R. mouth, MTY, 8 Oct 1988 (DR; GMcC; 182-1988). All were first-year birds except the female on 30 Aug 1988.

Some first-year birds in fall, such as 14-1988, may be reliably sexed as males by the presence of black feathers on the upper breast, however, those without black feathers are not necessarily females. On such birds, males tend to have brighter underparts and a darker and more extensive gray wash to the nape and head, but sexing in the field of first-year birds without black in the breast is not advisable (Pyle and Henderson 1990). The adult female on 30 August 1988, the first of this age/sex class documented in California in the fall, was interesting in that it had a white throat, a field mark of fall immature MacGillivray's Warblers (*O. tolmei*). Photographs of this bird and the first-year male of 8–11 September 1988 were published by Pyle and Henderson (1990).

SCARLET TANAGER *Piranga olivacea* (58). A female was banded and measured on SE Farallon I., SF, 22 Oct 1976 (RLeV; 7-1989). Adult males were in the Hollywood Hills, LA, 15–17 July 1982 (CF; 58-1989) and at the Carmel R. mouth, MTY, 11–17 Oct 1987 (PEL; DR†; 259-1987). First-year males were on Pt. Loma, SD, 14–18 Oct 1987 (CM, GMcC; 291-1987) and 23–30 Oct 1988 (DBa; JLD, GMcC, MAP; 226-1988). A female was at Huntington Beach, ORA, 7–15 Nov

1987 (LRH; JLD†, CM; 385-1987). At Goleta, SBA, a first-year male was seen 10–12 Nov 1987 (CDB; JLD†, PEL; 384-1987) and a first-year female hit a window and perished, 12 Nov 1987 (UCSB 20302; 386-1987). Females were at Ventura, VEN, 15 Nov 1987 (JSR; 47-1988) and on SE Farallon I., SF, *26* Nov 1987 (PH; 16-1988).

PAINTED BUNTING *Passerina ciris* (20). Dull first-year birds were near Santa Maria SBA, 8 Sep 1987 (GHR; JLD; 389-1987) and on Pt. Loma, SD, 4 Oct 1987 (PEL; CM; 387-1987). A first-year male was at Goleta, SBA, 21 Nov 1987 (JLD, PEL†; 388-1987), and a probable first-year female was there 4–5 Nov 1988 (PEL; JLD, MAP; 247-1988).

Immatures of this species molt their body feathers twice in the fall, once between June and August when they shed the juvenal plumage, and again between September and November when they acquire first basic plumage (Thompson 1991). This second or "supplemental" molt includes 3–6 outer primaries on each wing. The sexes are very similar before the supplemental molt, so dull birds seen from August through early October are not necessarily females. After the supplemental molt, first-year males can be distinguished from females by their brighter lime-green plumage and blue edges on the newly replaced outer primaries.

CASSIN'S SPARROW *Aimophila cassinii* (31). One was on SE Farallon I., SF, 13 Sep 1988 (DDK; 211-1988).

LE CONTE'S SPARROW *Ammodramus leconteii* (14). Individuals in juvenal plumage were on SE Farallon I., SF, 18–19 Sep 1987 (PH†; RAE; 17-1988) and 20–24 Sep 1987 (RAE, PH†; 18-1988). One was at China L., KER, 27 Nov 1988–2 Jan 1989 (DVB†, JLD, MJL, GMcC, MAP; 258-1988). One was at Fort Dick, DN, 5 Jan–11 Feb 1989 (ADB, RE, RAE, GSL, LPL; 48-1989).

Photographs of the China Lake and Fort Dick birds appear in AB (43:171 and 43:232, respectively), and a photograph of the second Farallon bird (along with a discussion of juvenal-plumaged Le Conte's Sparrows on migration) appears in Pyle and Sibley (1992).

RUSTIC BUNTING *Emberiza rustica* (2). One near Half Moon Bay, SM, 25–27 Nov 1988 (DJK, RST; JM, MAP, DR; 237-1988) makes the second record of this species for the state; the first was at Stone Lagoon, HUM, 7–8 Jan 1984 (Morlan 1986).

SNOW BUNTING *Plectrophenax nivalis* (26). A male was near Del Rio, HUM, 29 Nov 1987–5 Jan 1988 (FJB; AD, SDF, GSL, LPL; 402-1987). An adult male, the first of this age/sex class reported in California, was on SE Farallon I., SF, 27 Oct 1988 (PP; 213-1988).

COMMON GRACKLE *Quiscalus quiscula* (19). One was at Baker, SBE, 14 Nov 1987 (MAP; 56-1988). A male was at Santa Barbara, SBA, 29 Dec 1987–2 Mar 1988 (SFB, LRBa, JLD†, PEL†, CM, GMcC, MAP, DR†; 46-1988). A female was at the Mendoza ranch, Pt. Reyes NS, MRN, 21–22 May 1988 (RS†; JM; 124-1988). A female was at Furnace Creek Ranch, Death Valley NM, INY, 22–23 May 1988 (MAP; 147-1988). A male was at Crescent City, DN, 10–12 Nov 1988 (RAE, LPL; 268-1988).

This species has a nearly complete first prebasic molt, retaining only a few underwing coverts, so fall birds can not be aged in the field. The Pt. Reyes bird was singing and displaying, suggesting to some observers that it was a male. As females are known to display on occasion (Ficken 1963), and the bird had a brownish belly and flight feathers, we believe it to have been a female. All individuals noted above showed characters of the expected race, the Bronzed Grackle, *Q. q. versicolor.*

RECORDS NOT ACCEPTED, IDENTIFICATION QUESTIONABLE

YELLOW-BILLED LOON *Gavia adamsii*. One reported at the Waddell Creek mouth, near Santa Cruz, SCZ, 7 May 1986 (271-1986) would represent one of the latest spring records in California; many Committee members felt that this basic-plumaged bird may have been an odd Common Loon (*G. immer*).

WEDGE-TAILED SHEARWATER *Puffinus pacificus*. One was reported on Monterey Bay, MTY, 11 Sep 1988 (298-1988). Most Committee members felt the observation was too brief to suffice for such a rarity. Sight reports should include extensive description ruling out the Pink-footed Shearwater (*P. creatopus*) and Flesh-footed (*P. carneipes*) shearwaters for light- and dark-morph birds, respectively; see Stallcup et al. (1988) and McCaskie and Webster (1990).

WEDGE-RUMPED STORM-PETREL *Oceanodroma tethys*. Details of three reported from the general area of 32°45'N 122°15'W, about 120 nautical miles SSW of Pt. Conception, SBA, 9 May 1987; one at 33°40'N 121°50'W, about 80 nautical miles SW of Pt. Conception, SBA, 11 May 1987, and three more at 33°30'N 122°10'W, about 100 nautical miles SW of Pt. Conception, SBA, 11 May 1987 (all 190-1987) were felt inadequate, especially for a species with only four accepted records in California. Some members felt that the manner of flight and frequent pattering reported for these birds better fit the Wilson's than the Wedge-rumped Storm-petrel.

BROWN BOOBY *Sula leucogaster*. One reported about 10 miles W of Moss Landing, MTY, 22 Jun 1987 (221-1987) was felt to be a booby by virtually all committee members; however, the details of plumage coloration and pattern, along with the colors of the soft parts, did not eliminate the immature Masked (*S. dactylatra*) or Red-footed Booby. One reported from the S end of the Salton Sea, IMP, 27 Apr 1989 (66-1989) was seen only briefly at some distance, and lacked substantiating details.

TRUMPETER SWAN *Cygnus buccinator*. An immature swan photographed in Modesto, STA, 20 Jan 1988 (208-1988) was initially reported as this species. Information on the identification of immature swans presented by Tobish (1991) and Bailey (1991), however, led the committee to consider it more likely an immature Tundra Swan, an identification with which the observer later agreed.

GARGANEY *Anas querquedula*. A female-plumaged teal with a strongly patterned face was in Arcata, HUM, 30 Jan–10 Feb 1987 (73-1987). The description suggested a Garganey but could have pertained to Green-winged Teal (*A. crecca*), especially the nominate (Eurasian) race, which, like the Garganey, has two pale borders to the speculum. Viewing conditions during the period were poor (persistent rain accompanied by miserable light conditions), and some observers looking for the bird are known to have misidentified a female Green-winged Teal as the reported Garganey. The Committee felt that there were too many discrepancies among the descriptions, that the upperwing pattern was not well described, and that the species is otherwise too similar in appearance to many Blue-winged (*A. discors*) and Green-winged teals to confirm this significant record.

TUFTED DUCK *Aythya fuligula*. Individuals reported from Salinas, MTY, 15 Nov 1986 (47-1987) and Larkspur, MRN, 16 Feb 1987 (196-1988) may well have been Tufted Ducks, but the documentation was inconclusive.

MISSISSIPPI KITE *Ictinia mississippiensis*. An immature reported in flight at Moss Landing, MTY, 17 Sep 1988 (169-1988) was seen too briefly to warrant acceptance by most Committee members. The species is much rarer in California

RECORDS NOT ACCEPTED, identification questionable, Cont.

during fall than spring, so especially extensive documentation is required for fall records.

YELLOW RAIL *Coturnicops noveboracensis*. One was reported from Upper Newport Bay, ORA, 12 Apr 1989 (60-1989). Most Committee members felt the observation was too brief to support such a significant record.

COMMON RINGED PLOVER *Charadrius hiaticula*. An odd plover near Lakeview, RIV, 7–14 May 1988 (143-1988) was felt by most Committee members to be a Semipalmated Plover (*C. semipalmatus*) with a wider than average breast band. Reports of Common Ringed Plover ideally should be accompanied by detailed descriptions of at least the breast band, the facial pattern, the extent of webbing between the toes and, if at all possible, a comparison of the bird's call with that of Semipalmated Plover.

UPLAND SANDPIPER *Bartramia longicauda*. One was reported from the beach at San Elijo Lagoon, SD, 14 Nov 1987 (302-1987). The mid-November date and the habitat both weighed against its being accepted as an Upland Sandpiper.

RUFOUS-NECKED STINT *Calidris ruficollis*. A juvenile sandpiper in Eureka, HUM, 20 Aug 1987 (86-1988) was submitted as possibly this species. The record, including photographs, was reviewed by Lars Jonsson and Richard R. Veit, both of whom concluded that the bird was a Semipalmated Sandpiper (*C. pusilla*); the Committee unanimously agreed.

WHITE-RUMPED SANDPIPER *Calidris fuscicollis*. Individuals were reported from the Cache Creek settling basin, near Woodland, YOL, 15 Aug 1987 (371-1987) and at the S end of the Salton Sea, IMP, 13 Aug 1988 (67-1989). The Cache Creek bird was not observed in flight, hence the rump was never clearly seen. Half of the Committee members felt the bird was more likely an adult Western Sandpiper (*C. mauri*) or a Wilson's Phalarope (*Phalaropus tricolor*) than a White-rumped Sandpiper.

COMMON BLACK-HEADED GULL *Larus ridibundus*. One was reported at Malibu Lagoon, LA, 26 Nov 1988 (252-1988). This record was rejected, on a split vote, because the documentation was inconclusive.

LESSER BLACK-BACKED GULL *Larus fuscus*. Individuals were reported from the Santa Maria R. mouth, SBA, 25 Sep 1984 (321-1986), from the Whitewater R. mouth, N end of the Salton Sea, RIV, 4 Apr 1987 (266-1987), and from the Carmel R. mouth, MTY, 27 Oct 1987 (270-1987).

The bird at the Santa Maria R. mouth stimulated much discussion, generating useful information on the identification of immature Lesser Black-backed Gulls. Photographs show most feathers to be worn, indicating faded first-summer plumage, with some fresh dark gray second-winter feathers on the mantle. Two outside consultants disagreed on the bird's identity, with one expert stating emphatically that it was a Lesser Black-backed Gull, the other feeling it was not this species. Most Committee members felt that the identification was most likely correct, but only three endorsed it as such. The one member who saw the bird felt it best left unidentified.

The bird at the Salton Sea was an adult in summer plumage, but the description failed to specify the shape and exact pattern of the bill and the color of the eyes, and most Committee members felt there was a possibility that it was a California Gull (*L. californicus*) in breeding condition with vivid orange-yellow legs and the black in the bill obscured. The Carmel bird was in 3rd-winter plumage and compared directly with Western Gulls (*L. occidentalis*), but as it was reported to have pinkish legs and

RECORDS NOT ACCEPTED, identification questionable, Cont.

to lack dusky head markings, most Committee members felt that it was probably a small female Western Gull.

RUDDY GROUND-DOVE *Columbina talpacoti*. One was reported in Encinitas, SD, 15 Oct 1988 (220-1988A). Most Committee members felt the documentation was insufficient to eliminate a Common Ground-Dove. See Dunn et al. (1990) for information on separating these two species.

BROAD-BILLED HUMMINGBIRD *Cynanthus latirostris*. A female was reported from Oceanside, SD, 24 Sep 1986 (43-1987). The observer did not submit any details; the only description available for review by the Committee was written during a telephone conversation with the observer. The Committee was reluctant to accept this record based on second-hand information, especially since hybrid hummingbirds can present identification problems.

EASTERN WOOD-PEWEE *Contopus virens*. Wood-pewees giving repeated clear upslurred whistles were observed in Los Osos, SLO, 21 Oct 1986 (26-1987) and at the Carmel R. mouth, MTY, 11–14 Dec 1986 (457-1986). These two records were circulated together, provoking lengthly discussions among Committee members on variation in the vocalizations and appearances of Eastern and Western (*C. sordidulus*) wood-pewees. The identifications of both birds relied heavily on the calls, which were consistently described by the four Los Osos observers as a clear short "pee-wee" and by three observers submitting descriptions of the Carmel bird as a clear rising "pweeee" lasting about one second. A tape recording, sonograph, and photographs of the Carmel bird accompanied the record. The Los Osos bird also gave many "chip" or "pit" notes, and the Carmel bird was heard on one occasion to give a short series of light "chips." The Los Osos bird was described as appearing like a typical Western Wood-Pewee and having a dark mandible, whereas the Carmel bird was described essentially as being dark gray above with a uniform grayish wash across the breast, pale undertail coverts, and an orange mandible with a black tip.

The identification of wood-pewees that are not in full song is one of the most difficult field-identification challenges for North American ornithologists. Most Committee members felt that, with current knowledge, neither of these wood-pewees could be identified to species, although the calls, appearance, and late date of the Carmel bird suggested to most members that it was likely an Eastern Wood-Pewee.

The records prompted several members to describe clear calls of varying length, strength, and inflection that they had heard from other pewees in California; these included birds in Committee-member Roberson's backyard in late April and early May 1987, tape recordings and sonographs of which were circulated with the record. Outside consultant Marie Mans also provided the Committee with recordings of Western Wood-Pewees from Lundy Canyon, Mono County, that gave various clear upslurred calls, some sounding much like the bird at the Carmel R. mouth, and she further related that she had heard this call many times from Western Wood-Pewees. She believed that they might be given most often by birds in their first spring. Although "chip" notes were generally considered to be given more frequently by the Eastern than the Western Wood-Pewee, there was disagreement on this, as well as on the exact quality of these notes. Members had frequently heard similar notes from Western Wood-Pewees.

Differences in the appearance of the two species were also discussed. Although there is much overlap between the plumages of the two species, Eastern Wood-Pewees tend to have greener backs that contrast slightly with darker crowns, paler, streakier underparts, and mandibles entirely orange or mostly orange with a black tip; Western Wood-Pewees tend to have uniform brownish or sooty backs and crowns, darker, more uniform underparts, and mandibles mostly dark with orange at the base.

RECORDS NOT ACCEPTED, identification questionable, Cont.

Committee members reported having seen both Easterns with entirely dark mandibles and apparent Westerns with entirely orange mandibles. As the appearances of the two California birds were not diagnostic of the Eastern Wood-Pewee, most members felt it best to withhold acceptance until the calls of the two species on migration are better understood. The bird at the Carmel R. mouth was the first wood-pewee recorded in California in December.

ALDER FLYCATCHER *Empidonax alnorum*. An otherwise undescribed Traill's Flycatcher was heard giving a sharp call note, described as "peet," at Oasis, MNO, 6 Sep 1987 (282-1987). Most members felt that there was a good chance this bird was an Alder Flycatcher but required more substantial documentation, including a detailed plumage description, measurements, and preferably audiospectrograms of vocalizations, before accepting a first state record of this enigmatic species. Members having experience with the calls of both Willow (*E. traillii*) and Alder flycatchers felt that there are diagnostic differences between them that could be used to identify vagrants of either species. There was concern, however, that the full range of variation in the calls of Willow Flycatcher, typically described as "whit," is not well known. Several members mentioned that they had heard occasional "peet" notes from Willow Flycatchers on their breeding territories in California, although the softer "whit" was the predominant note given by these birds.

The circulation of this record prompted several members to report other migrant Traill's Flycatchers in California that had been heard giving "peet" call notes, all of which were observed in June or from late August to mid-September. There have also been four birds banded on SE Farallon I. between 27 August and 4 September (Pyle and Henderson 1991) and a fifth on 21 August 1991 that had measurements and plumage suggesting the Alder Flycatcher but did not call. Observers in California are urged to submit descriptions of Traill's Flycatchers giving "peet" calls so that patterns in occurrence and appearance of these birds can be ascertained. The acceptance of a non-singing Alder Flycatcher in California can only follow a concerted assessment of all identification criteria on many individuals, as preceded acceptance of the Least Flycatcher (*E. minimus*) as a regular visitant to the state and its removal from the CBRC Review List (Winter and McCaskie 1975, Luther et al. 1979).

SCISSOR-TAILED FLYCATCHER *Tyrannus forficatus*. One was reported near Linden, SJ, 2 Jan 1988 (151-1988). This individual was described as a juvenile, with a notched but short tail, which would be unlikely during early January. Most members felt that this individual was a Northern Mockingbird (*Mimus polyglottos*) or a Say's Phoebe (*Sayornis saya*) with an atypically notched tail.

VEERY *Catharus fuscescens*. A *Catharus* thrush at the Nunes ranch, Pt. Reyes NS, MRN, 24 Oct 1987 (77-1988), was seen in the deep shade by a number of observers, all of whom felt that the upperparts appeared redder than is typical of a Swainson's Thrush (*C. ustulatus*). There was also general agreement that the flanks of the bird were gray, without brownish tones, and that its breast had small round spots that changed from brown above to gray below. All three of these characters suggested that the bird was a Veery. The descriptions of the eye ring varied, however, with most observers perceiving it as thin but fairly prominent and full or nearly full, more like the eye ring of Swainson's Thrush than that of Veery. The principal observer was not fully confident that this bird was not a Swainson's Thrush, but submitted it as a possible Veery to elicit further comment from the Committee, a practice that the CBRC encourages in cases like this. Committee members along with outside reviewer Claudia Wilds generally agreed that the bird could have been a Veery but that the identification was inconclusive owing to the description of the eye

RECORDS NOT ACCEPTED, identification questionable, Cont.

ring. Two members felt that the bird was possibly from western populations of Veery (*C. f. salicicola*), which resemble Swainson's Thrush more closely than do eastern populations and are not as well known by the observers and Committee members.

EYEBROWED THRUSH *Turdus obscurus*. Although descriptions of birds at Yaqui Well, SD, 3 Mar 1990 (31-1990) and San Rafael, MRN, 6 Mar 1990 (32-1990) suggested this species, neither was detailed enough to eliminate an atypical American Robin (*T. migratorius*), particularly of the western race (*T. m. propinquus*), which is duller than other subspecies and often has a distinct superciliary. Neither observer said why the bird was not an American Robin. We encourage observers to rule out similar species, particularly when they are reporting prospective first records for the state.

RED-THROATED PIPIT *Anthus cervinus*. One was reported near Pt. Mugu, VEN, 11 Oct 1987 (44-1990). The bird was not heard calling and the description was too brief to eliminate other Asian species of pipits.

WHITE-EYED VIREO *Vireo griseus*. A taped recording of a singing bird at the Big Sur R. mouth, MTY, 27 Sep–3 Oct 1987 (239-1988) was submitted as possibly pertaining to this species. Outside consultants Donald J. Borror and Richard A. Bradley both made audiospectrographs of the tape, and commented that the bird could have been a White-eyed Vireo. Borror, however, had never heard or recorded a White-eyed Vireo sounding quite like the California bird, and Bradley thought that the song could also have been that of an immature wren, possibly a House Wren (*Troglodytes aedon*). These comments resulted in unanimous rejection by the Committee on the second round.

PHILADELPHIA VIREO *Vireo philadelphicus*. Descriptions from Blue Lake, HUM, 20 Sep 1988 (263-1988) and the Nunes ranch, Pt. Reyes NS, MRN, 30 Sep 1988 (215-1988) were too brief to eliminate the possibilities that these birds were Yellow-green or Warbling (*V. gilvus*) vireos.

BLUE-WINGED WARBLER *Vermivora pinus*. One was reported from Butterbredt Springs, KER, 9 Oct 1988 (68-1989). As this would represent the latest record for California, most Committee members required more substantial documentation than was provided.

SWAINSON'S WARBLER *Limnothlypis swainsonii*. One was reported in the Tijuana R. valley, SD, 1 Nov 1987 (300-1987). This bird, which would have represented a first California record, was well seen by two observers, both of whom submitted detailed descriptions, but the record was rejected by the Committee in the second round by a 3–7 vote. Although some members felt that the descriptions fit Swainson's Warbler better than any other species, Committee members Bailey and Marantz compared the bird's reported plumage with good series of museum specimens at CAS and LSU, respectively, and found several small discrepancies between the skins and the descriptions. These discrepancies plus the late date for this relatively early migrant were the main points precluding acceptance.

MOURNING WARBLER *Oporornis philadephia*. A yellow-throated *Oporornis* warbler banded and measured on SE Farallon I., SF, 8 Sep 1984 (118-1987) was judged to be either a Mourning Warbler with atypically bold eye crescents or a hybrid between Mourning and MacGillivray's warblers; in either case, too much uncertainty existed for the record to be accepted. A photograph of this bird, along with further discussion, appears in Pyle and Henderson (1990).

One was reported from the Oxnard plain, VEN, 27 Sep 1986 (42-1987). The identification of this bird relied heavily upon its yellow throat. Committee members

RECORDS NOT ACCEPTED, identification questionable, Cont.

felt that the description was otherwise too brief to eliminate other warblers, such as a yellow-throated MacGillivray's Warbler (see Pyle and Henderson 1990).

SCARLET TANAGER *Piranga olivacea*. One was reported from Bolinas, MRN, 10 Sep 1987 (274-1987). This individual, described as an immature female, was seen briefly by an experienced observer who had just arrived in California and was unaware of the rarity of Scarlet Tanagers in the state. Uncertainty about the length and quality of observation and the extremely early date, especially for an immature female, caused members to shy away from acceptance (by a 3–7 vote on the second round).

YELLOW GROSBEAK *Pheucticus chrysopeplus*. One was reported in Carmichael, SAC, 10 Aug 1989 (33-1990). Although the report was intriguing, not enough description was submitted to document what would be, pending consideration of natural occurrence, a first state record.

The description of this bird was submitted on a standard rare-bird sighting form. We discourage the use of these forms as they do not present an organized account of a sighting or of the field marks observed. We recommend using these forms as a reference for what to include but submitting details in the form of a written account.

FIELD SPARROW *Spizella pusilla*. One was reported near Mt. Shasta, SIS, 17 Dec 1988 (44-1989). Although the description of the bird's plumage suggested a Field Sparrow, there was no indication of the bird's shape or size in the write-up. Most members were concerned that the bird may have been an unusully bright immature White-crowned Sparrow (*Zonotrichia leucophrys*).

LE CONTE'S SPARROW *Ammodrammus leconteii*. One was reported from Elk Head, HUM, 10 Oct 1987 (400-1987). At the time there were no records of the species north of SE Farallon I., so most Committee members required more substantial documentation than was provided.

COMMON GRACKLE *Quiscalus quiscula*. A pair was reported from Pacifica, SM, 21 May 1988 (288-1988), one was reported from Crescent City, DN, 10 Jul 1988 (264-1988), and a flock of twelve birds were reported near Oceanside, SD, 16 Nov 1988 (73-1989). Grackles were suggested by all three descriptions but none of them adequately eliminated the possibility of the Great-tailed Grackle (*Q. mexicanus*).

COMMON REDPOLL *Carduelis flammea*. One was reported from Berkeley, ALA, 4 Jan 1988 (80-1988). The Committee unanimously felt that this bird was not a redpoll but was likely another species with a face blackened by nectar or pitch from eucalyptus trees.

RECORDS NOT ACCEPTED, NATURAL OCCURRENCE QUESTIONABLE (IDENTIFICATION ACCEPTED)

JACKASS PENGUIN *Spheniscus demersus*. One was observed near Chimney Rock, Pt. Reyes NS, MRN, 3–16 Feb 1981 (KFC; 172-1988). Bailey (1981) suggested that the description of this bird favored the Humboldt Penguin (*S. humboldti*); however, the Committee and Bailey later agreed with the observer's identification. The Jackass or Black-flippered Penguin has been kept in captivity in California; birds are legally imported into the U.S. from South Africa (Nilsson 1981). No Committee member felt that this individual reached California as a natural vagrant.

RECORDS NOT ACCEPTED, natural occurrence questionable (identification accepted), Cont.

PAINTED BUNTING *Passerina ciris*. Adult males were seen near Imperial Beach, SD, 13 Sep 1987 (TEC; 55-1988), in San Luis Obispo, SLO, 21–25 Jan 1988 (MA; 118-1988), at Huntington Beach, ORA, 11–12 Nov 1988 (GMcC; 283-1988), and in Santa Barbara, SBA, 14 Feb–9 Apr 1989 (P & JMcC†; PEL; 55-1989). The Imperial Beach bird had yellowish underparts, the San Luis Obispo bird had bright red underparts, the Huntington Beach bird had "funny-looking bright burnt orange" underparts, and the Santa Barbara bird initially had bright red underparts that began to fade to orange before it was last seen. The rejection of these records is consistent with the philosophy of most Committee members that winter adult males and/or males showing less than bright red underparts in California are more likely escaped cagebirds than true vagrants, although the two individuals with bright red underparts were accepted by two members who felt that enough winter records accumulated of Painted Buntings had to suggest true vagrancy. Examination of museum specimens at LACM and CAS by Committee members Garrett and Bailey, respectively, supported the contention that aviary birds of this species were more likely than wild birds to have faded underparts (apparently due to diet deficiencies), although a male specimen from South Carolina (CAS 52927), presumably not an escapee, also showed underparts suffused with yellow. Accordingly, the natural occurrence of the Imperial Beach and Huntington Beach birds was unanimously rejected, although it was pointed out in comments that a wild bird may suffer diet deficiencies from being out of range, as happened with the Santa Barbara bird. It was also suggested that second-winter males may regularly show more orange in the underparts than adults, but this point needs confirmation. Adult male Painted Buntings are common in captivity in Mexico (Pyle pers. obs.), and illegal importation into California is known to occur (Nilsson 1981).

CORRIGENDA TO ELEVENTH REPORT (BEVIER 1990)

Under Accepted Records, p. 148: The Observer for record 225-1986 (Yellow-billed Loon) was Jon Winter, not John Wilson.

CORRIGENDA TO TWELFTH REPORT (LANGHAM 1991)

Under Accepted Records, p. 115: The Grace's Warbler reportedly in Irvine, ORA, 21 Feb–27 Mar 1987 (169-1987) was actually in Newport Beach, ORA.

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NOTES

FIRST RECORDS OF XANTUS' HUMMINGBIRD IN CALIFORNIA

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On the afternoon of 30 January 1988, Art Edwards, Peter Willmann and I were birding at 157 Via Baja in Ventura, Ventura County, California. Virgil Ketner, of 169 Via Baja, was also there to show us the adult male Broad-billed Hummingbird (*Cynanthus latirostris*) that had been coming to his and his neighbor's feeders. The weather was clear, calm, hazy, the temperature about 60°F. About 1430, while waiting for the Broad-billed Hummingbird to reappear, I heard a buzzy chatter coming from a blooming bottlebrush tree, then saw an unfamiliar hummingbird in it. I called the others over to look at the bird, and Edwards and I saw it hovering in the shaded bottlebrush for perhaps 10 seconds before it flew off. I wrote the following description about 10 or 15 minutes after my observation: Moderate size hummingbird. All green back. All pale rufous-beige underparts. Green crown. White face with broad sooty eye line, much broader than the white borders above and below it. Dark bill. Feeding in bottlebrush. Low-pitched buzzy chatter.

Later that day, I discussed my observation with Richard A. Erickson, and he tentatively identified my brief initial description as being of a Xantus' Hummingbird (*Hylocharis xantusii*). In the meantime, Ketner had called James S. Royer, who came over, saw the bird, and also identified it as Xantus' Hummingbird. It wasn't until the next morning, after about 60 people had seen the bird at dawn, that I was able to consult Peterson and Chalif (1973), and I also identified the bird I had seen as very similar to their painting of a female Xantus' Hummingbird.

About 1300 that day, with the weather about the same as the previous day, we returned to 157 Via Baja, and all saw the bird. Much better views, some in bright sunlight, enabled me to write the following description.

The bill was about 1.5 head-lengths long, decurved near the tip, with some red at the base of the mandible, otherwise blackish. Viewed from below, the bill was a thin triangle. The throat, breast, and belly were pale orange; the crissum was whitish. A whitish "T" stretched across the base of breast and extended from the center of the breast down the center of belly. A dark eye patch was boldly bordered white above, but *not* below. Below the eye patch was just the pale orange of the throat. [A stunning photograph by Larry Sansone, Figure 1, shows a white patch below the dark eye patch and above the spotty orange of the throat and underparts. The supercilium is, however, more boldly white than the area below the eye. The appearance of white below the eye patch, described in my original observation, seems to depend on how the bird is holding its head.] The crown and back were green, the rump a dark gray, the same as the wings. The tail was rounded when folded, as seen from below. I saw pale orange outermost tail feathers when the tail was silhouetted against patches of open sky through the tree. All of the tail feathers I could see from below seemed of uniform color their entire length. I could see no black or white on the tail, just green and orange. [A photograph by Virgil Ketner, Figure 2, shows the bird hovering at a feeder with its tail fanned. The outer tail feathers are all orange. The inner ones have a subterminal patch of dark blue.] The bird perched occasionally for about a minute at a time. It also called as it fed, moving quickly a short distance (6 to 12 inches), staying a few seconds, and moving again. The call was a loud low buzzy rapid "zit-zit-zit-zit . . . ," about five or six notes per second.

This description differs from Peterson's painting of an adult female Xantus' Hummingbird (in Peterson and Chalif 1973) in two ways: the gray, not green, rump, and the whitish, not orange, crissum. I don't know the significance of this.

A conversation with Nita Ketner revealed that she may have observed the bird outside her window at 169 Via Baja as early as Thursday, 28 January 1988, two days before my initial observation. The bird later proved to be an adult female by building two nests, sequentially, and laying two eggs in each. All the eggs proved infertile. Virgil Ketner found both nests. The bird began the first on 3 February 1988 in a Catalina Cherry tree (*Prunus lyonii*), laid two eggs, and brooded them regularly until 1 March, when it began leaving the nest for an hour or two at a time. On 2 March, the nest was collected by Lloyd Kiff for the Western Foundation of Vertebrate Zoology. As Kiff was leaving, Ketner observed the bird beginning a new nest in a tree full of ripe avocados. It completed the nest despite harvesting of the avocados and laid two more eggs, the first on 7 March. Ketner observed it incubating the eggs through 26 March. He last observed it early on the morning of 27 March. No one reported seeing it after that.

Figure 1. Female Xantus' Hummingbird on the nest in Ventura, Ventura County, California, 1988.

Photo by Larry Sansone

This nesting time is consistent with that observed by Chester Lamb (1925) at Comondú (Mission San José de Comondú, in the interior of Baja California Sur, northwest of Loreto) in the northern part of the species' usual range. He inferred from his observations that nesting began in early February and continued at least through April. Two eggs were usually found in a nest, though sometimes only one was found. Further south, in the Sierra de la Laguna, his observations led him to infer a later nesting period, mid-July to mid-September.

During its stay, this Xantus' Hummingbird was seen by countless birdwatchers and thoroughly documented by photographs, now in the files of the California Bird Records Committee at the Western Foundation of Vertebrate Zoology, Los Angeles. The record was accepted unanimously by that committee (Pyle and McCaskie, this issue).

Xantus' Hummingbird is endemic to southern Baja California, nesting as far north as San Ignacio in northern Baja California Sur. It is sedentary, but known to occur outside its breeding range. In Baja California (Norte), it has been recorded reliably only from Santa Gertrudis, a mission about 8 km north of the border with Baja California Sur, by Huey (1940). As an aside, Huey noted, "The presence of Xantus Hummingbirds (*Basilinna xantusii*), several of which were observed, definitely

Figure 2. Female Xantus' Hummingbird at feeder in Ventura, Ventura County, California, 1988.

Photo by Virgil Ketner

records this Cape species from a locality near the northernmost extremity of its range." The report by Martin Cody, cited by Wilbur (1987), that this species is "common" at San Telmo, appears to be in error. I visited there in November 1986 with Philip Unitt, and he also visited there in June 1986, May 1987, and February 1991, without seeing any Xantus' Hummingbirds. San Telmo, just south of latitude 31°N and just east of Mexico Highway 1, is frequently visited by birdwatchers in search of Gray Thrashers (*Toxostoma cinereum*). If Xantus' Hummingbird were common there, there would be some confirmation of the fact. However, there is no other record from San Telmo.

Richard Klauke of St. Paul, Alberta, Canada, reported seeing an adult male Xantus' Hummingbird at Yaqui Well, Anza–Borrego Desert State Park, San Diego County, on 27 December 1986 (in McCaskie 1987). After a delay in being submitted, this record has now also been accepted by the California Bird Records Committee (Pyle and McCaskie, this issue). An excerpt from Mr. Klauke's description, taken from his submission to the Records Committee, follows.

"Looking at its side I could see the reddish black-tipped slightly decurved beak attached to a face totally unlike that of a Broad-billed Hummer. There was a broad white streak running from above the eyes down the sides of the neck, leaving a narrow black mask through the eyes and black running from the beak up over the crown. Sizewise, it was larger than a Costa's and smaller than an Anna's Hummingbird. When it turned its back toward me I noticed immediately that the tail feathers were a dark reddish brown.... The black mask and crown revealed no purplish or other iridescent reflections, even as it turned its head, being totally black. The gorget was a solid brilliant green, and immediately below and sharply demarcated from the gorget was an orangy-buff belly and chest."

The bird Mr. Klauke saw was frustratingly uncooperative, and he was unable to refind and photograph it. Although he promptly reported his observation to other area birdwatchers, they too were unable to refind it. The Ventura bird, appearing a little over a year later, amply redressed the frustration for North American birders. Virgil Ketner's guest book lists over 1000 visitors who saw the bird during its nearly two-month stay.

These are the only records of Xantus' Hummingbird outside Baja California.

I thank the reviewer of this note, Steve N. G. Howell, for the reference to Lamb's article on the nesting of Xantus' Hummingbird, and for pointing out that the Lucifer Hummingbird is not at all similar to Xantus' and that no comparison is required. I also thank the editor for encouragement and guidance in preparing this article.

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WINTER STATUS OF THE SORA IN THE PACIFIC NORTHWEST

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In this note I attempt to clarify the winter range and population density of the Sora (*Porzana carolina*) in Oregon, Washington, and British Columbia by using data from Christmas Bird Counts (CBCs) and other sources. The Sora's principal winter range extends from the south Atlantic and Gulf states west through central Arizona and northern New Mexico to central California and south into South America. The species "occasionally occurs in winter north to extreme southern Canada and the northern United States" (A.O.U. 1983). Most Soras migrate out of the Pacific Northwest by September, although later migrants have been noted, e.g., as late as 8 November 1987, Malheur National Wildlife Refuge, Harney Co., Oregon (Littlefield and Cornely 1984). A late fall record from Washington is for 6 November 1980, Moses Lake, Grant Co. (Rogers 1981). Soras typically return to western Oregon, Washington, and British Columbia by early to mid-April, arriving on the coast a week earlier and east of the Cascades a week later than in the interior valleys (Cannings et al. 1987, Littlefield 1990, Littlefield and McLaury 1973, Paulson 1990, pers. obs.).

The first published winter record of a Sora in Oregon appears to be of the single bird reported on the 3 December 1956 Fort Klamath CBC; Gabrielson and Jewett (1940) cited no winter record of the Sora for the state. Eltzroth (1987) listed the Sora as a permanent resident, meaning that "some birds remain year round," but provided no details owing to the format of the publication. Soras have been known to winter in small numbers in western Washington since the early 20th century, with several records published by Jewett et al. (1953). The earliest published winter record of a Sora in British Columbia is of a bird collected at Chilliwack in the Fraser Valley on 6 December 1927 (Munro and Cowan 1947); this bird is now in the British Columbia Provincial Museum. The species is considered casual in winter in the Vancouver area, from which 16 of the province's 20 winter records come (Campbell et al. 1990) and where descriptions are still expected as documentation of winter sightings (Wayne Weber pers. comm.).

A report of "flocks" of Soras at the Klamath Basin National Wildlife Refuges on 7 February 1980 (Watson 1980) is difficult to evaluate. These birds were reported as migrants, but the location is suitable for wintering, and the species is known occasionally to form large flocks on favored wintering grounds (Ripley 1977). The date seems early for migrant birds even at such a southerly location, as the earliest spring migrant found at Malheur National Wildlife Refuge (a somewhat less temperate location) from 1956 to 1988 was on 4 April 1979 (Littlefield 1990). A bird found 7 March 1985 at Devil's Lake, Lincoln Co., Oregon (Heinl 1985), could have been wintering or an early migrant, as "some" Soras were reported there during the winter of 1984–85 (Phil Pickering, fide M. S. Eltzroth). Likewise, birds found on the Oregon coast 11 March 1984 (Geoff Keller) and in the Willamette Valley 18 March 1990 (Alan McGie, both fide M. S. Eltzroth) could have been winterers or migrants.

The great majority of published reports of winter Soras in the Pacific Northwest (with the notable exception of British Columbia) are from CBCs (Table 1). I have followed Raynor (1975) in not adjusting the CBC data by factors such as party hours, number of observers, or habitat coverage because searching for rails is a specialized task and published CBC data are unlikely to reflect actual searching for rails accurately. It is quite possible to "cover" a marsh without seeking rails, and rails rarely offer themselves to be tallied, especially in winter.

Vancouver, British Columbia, Seattle, Washington, and Coos Bay and Medford, Oregon, recorded the species on five counts from 1970 through 1989. Grays

Table 1 Sora Records on Pacific Northwest Christmas Bird Counts, 1970–1989

Year	British Columbia	Washington	Oregon	Total
1989	0	2	1	3
1988	0	1	2	3
1987	0	0	1	1
1986	0	0	5	5
1985	0	1	6	7
1984	2	0	4	6
1983	1	0	3	4
1982	0	1	0	1
1981	0	0	4	4
1980	1	2	1	4
1979	0	2	0	2
1978	0	0	2	2
1977	0	0	2	2
1976	1	2	1	4
1975	0	2	0	2
1974	3	0	0	3
1973	0	0	1	1
1972	1	1	0	2
1971	0	0	2	2
1970	0	0	1	1
Average per year	0.5	0.7	1.8	3.0
Total	9	14	36	59

Harbor, Washington, and Sauvie Island, Oregon, found Soras on four counts during this period. The northernmost location reporting the species was the Penticton, British Columbia, CBC. Four counts in British Columbia, four in Washington, and 13 in Oregon recorded Soras between 1970 and 1989. Records of multiple birds were more regular in the southwestern corner of Oregon than in the rest of the region, and as many as five Soras wintered at Port Orford, Curry Co., one year (Heinl 1986), but otherwise winter records are scattered more or less evenly along the coast (Figure 1).

Fifteen additional winter records of Soras in the Pacific Northwest, mostly of single birds on or near the coast, were published from 1970 to 1989. They generally match the geographic pattern shown by the CBC results. Of these records, two are from British Columbia, five are from Washington, and eight are from Oregon. Two of the latter records are from Malheur National Wildlife Refuge, where the CBC has not recorded the species.

The Virginia Rail (*Rallus limicola*) winters regularly in numbers in the Pacific Northwest, particularly at fresh water near the outer coast and around Puget Sound. The CBC maximum of 60 was found at Lincoln City, Oregon, in 1985, and counts of over 20 birds are not uncommon on coastal Oregon and Washington CBCs when appropriate habitat is well covered. Counts on the southwestern British Columbia coast have found numbers exceeding 10 birds regularly in recent years. Virginia Rails winter regularly in smaller numbers in the temperate interior valleys of western Oregon and Washington. The species winters irregularly at favored locations, sometimes on running water, east of the Cascade Range.

Knowledge of the Virginia Rail's winter range is apparently increasing; 12 years ago Rogers (1980) wrote that the species was "almost unheard of" in the inland basins of the Northwest in winter. This increase in reports (see also McQueen 1981, Heinl 1987) is more likely a consequence of increased observer effort at favored wintering locations than an indication of a winter range expansion. The most important factor in the increase in reports is certainly the expanded availability in the past 20 years of small inexpensive portable tape players.

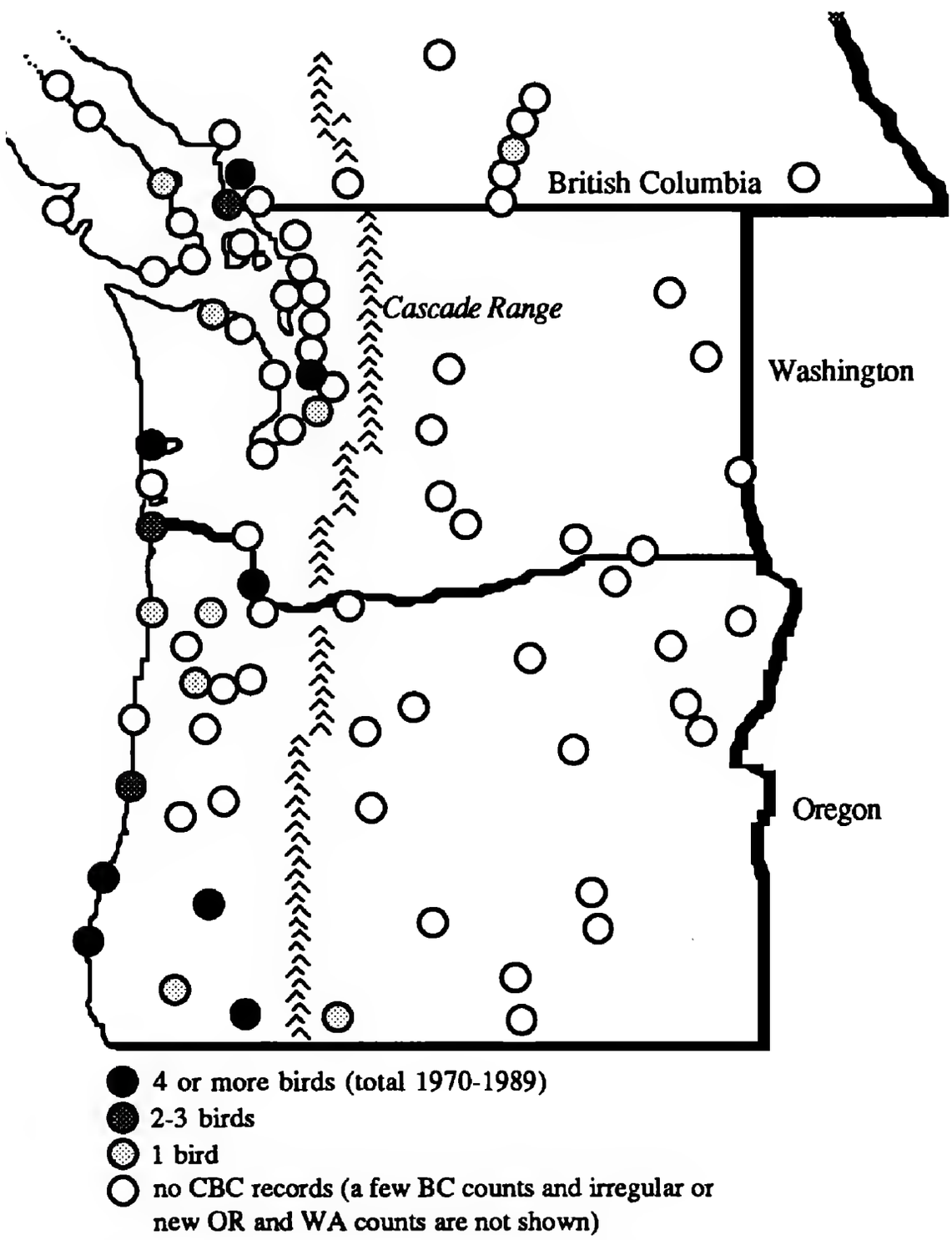
British Columbia
Cascade Range
Washington
Oregon
4 or more birds (total 1970-1989)
2-3 birds
1 bird
no CBC records (a few BC counts and irregular or new OR and WA counts are not shown)

Figure 1. Locations of Christmas Bird Count records of the Sora in the Pacific Northwest, 1970–1989.

According to Ripley (1977), Soras are less inclined than Virginia Rails to use marshes with salt or brackish water and are more likely to forage in drier areas. On the Oregon coast winter Soras prefer freshwater marshes and even open swamps with sufficient emergent vegetation, especially cattails and sedges. They are not usually expected in Oregon's limited coastal salt marshes. Virginia Rails appear more flexible in their wintering habits, appearing in marshes but also in marginal habitat such as overgrown ditches, wet grassy swales, and even shallowly flooded thickets of willows with no sedges, cattails, or emergent grasses.

The Sora is said to be sensitive to cold (Bent 1926) and is more regular in those parts of the Pacific Northwest where extended periods of freezing are rare. It is not clear, however, why the Virginia Rail, with a summer diet reported in one study to be 62% insects, would be less sensitive to cold than the Sora, which is reported to eat 73% seeds (Horak 1970). Although differences in biomass between the two species' food sources may explain part of the difference in wintering patterns, differences in food habits alone appear unlikely to explain fully why Soras do not winter in comparable numbers in unfrozen areas with large concentrations of Virginia Rails. The Virginia Rail is slightly larger than the Sora, which may provide marginally better energy efficiency during cold periods. Other factors may be involved, and this subject deserves further study.

One of the difficulties in evaluating winter records of Soras is that some of these are of calling rails that were not seen. Rail sounds can be confusing (e.g., see Manolis 1981, Bailey 1977, Bollinger and Bowes 1973), and I have seen and heard Virginia Rails make descending "keek keek" notes in winter that are similar in tone to some Sora sounds. Although Soras are less vocal in winter than are Virginia Rails, they do make some sounds that may aid in identification and others that may confuse observers.

According to Gochfeld (1972), Soras wintering in Trinidad uttered "a brief nasal 'ka' and a more plaintive 'peeyanh' ending with a rising inflection . . . similar to call notes I have heard from Soras on their breeding grounds." Kaufmann (1983), however, reported that a "kiu" note given by both Soras and Virginia Rails is not distinguishable between the two species. In addition, Soras and Virginia Rails occasionally respond to taped calls of the other species, albeit with their own sounds, not imitations. For this reason I usually play tapes of both species when attempting to elicit a response. I have occasionally located Virginia Rails with a Sora tape when they had not responded to a tape of their own calls, and vice versa. This circumstance necessitates considerable observer caution in identifying a bird responding obscurely to a taped recording of either species.

Although some winter Sora records are of seen birds, e.g., one on the Florence, Oregon, 1986 CBC, which was observed making a typical ascending "peeyanh" call (Mike Patterson pers. comm.), and six of the seven early British Columbia records are of specimens, some other identifications are less certain. Until more observers are familiar with the Virginia Rail's range of vocalizations, the uncertainty of some winter Sora records is likely to continue. I included all CBC records in Table 1 because it is usually impossible to determine whether a bird reported on a CBC was heard or seen, as *American Birds* does not retain details for unusual species. Regional editors of field notes and CBCs should alert reporters to this potential problem and specify when possible in published reports whether the birds were seen or how heard birds were identified.

From the limited data available, some of which are questionable, it appears Soras can be found occasionally in winter in favored locations in the coastal lowlands of southwestern British Columbia and along Puget Sound and in freshwater marshes and some partly wooded swamps along the outer coast of Washington and Oregon. They are more regular and more numerous along the south coast of Oregon and in

nearby temperate interior valleys. In this area the species is probably of annual occurrence in small numbers.

Rails in general are under-sought and under-reported. Additional attention should be given to determining their status, especially as wetlands preservation becomes a more visible and central part of policy agendas of public land management agencies at all levels. Many winter Sora records are at best unverified and may represent misreporting of unfamiliar Virginia Rail sounds, so observers reporting Soras in winter should attempt to see the bird.

I appreciate the assistance of Diane Calabrese, Elzy Eltzroth, Ben Fawver, David Fix, Gary Lester, Harry B. Nehls, Mike Patterson, Jim Rogers, Chris Siddle, Clarice Watson, and Wayne Weber in reviewing a draft of this note and providing information regarding records of the Sora in winter. I especially appreciate Chris Siddle and Wayne Weber's comments and information regarding British Columbia records. Their information was, as always, thorough and exceptionally useful to an author without easy access to new or hard-to-find publications on the birds of that ornithologically diverse province. Jules Evens, David Fix, and Tim Manolis made many significant suggestions that strengthened the text. Finally I thank the record-keepers and bibliographers who have done such a superb job in preparing published research guides for people interested in Oregon ornithology. Scott et al. (1972), Egger (1980), and Watson (1982) were of considerable value in tracking down published records of the Sora from Oregon, and the computerized Oregon bird report data base maintained by Elzy Eltzroth was also quite useful.

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FIRST BREEDING RECORDS OF THE CASPIAN TERN IN BAJA CALIFORNIA, (NORTE), MEXICO

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The Caspian Tern (*Sterna caspia*) is a nearly cosmopolitan species, except for South America, with a highly discontinuous breeding range (Voous 1960). On the Pacific coast of North America breeding colonies are widely scattered from Sinaloa, Mexico, to Washington, U.S.A. (AOU 1983). In the peninsula of Baja California, the only breeding colonies of Caspian Terns known so far are at Scammon's Lagoon (Bancroft 1927, Grinnell 1928, Wilbur 1987, Everett and Anderson 1991, M. Evans pers. comm.), where they nest together with Royal Terns (Bancroft 1927), and at Laguna San Ignacio (Danemann 1991, Danemann and Guzmán 1992). Both of these breeding colonies are located south of latitude 28°N, in the state of Baja California Sur. In this note, we report an additional small breeding colony at Laguna Figueroa (30°40'N), the first for the state of Baja California. We have described this closed coastal lagoon and its breeding birds previously (Palacios and Alfaro 1991).

We visited Laguna Figueroa on 7–9 May, 28 May, and 22 June 1991. During the first visit we found only the same breeding birds already reported for this lagoon, except Forster's Terns, which did not breed this year. On the second visit, we saw a pair of Caspian Terns on the ground, one of which was incubating and the other, alerted by our presence, was positioned 20 m from the nest. While we watched these birds, a third individual arrived but was attacked and driven away by the bird resting away from the nest. The nest, containing one egg, was a round depression in an off-road vehicle's track, on the salt flat at the northern end of the lagoon, 25 m from the northernmost pond. On the third visit, on 22 June, we found 22 individuals (10 pairs) at the colony, six nests with one egg, three with two eggs (average 1.33 eggs per nest), two eggs broken by predators, and a few empty nest scrapes. There were coyote (*Canis latrans*) tracks near the nests. All nests were found in the vicinity of the nest located on the first visit, and occupied a small area of about 25 m^2. The distance between nests averaged 4 m (range 2–5 m; $n = 6$). The Caspian Tern colony was located 50 m from the Least Tern colony, which increased from 10 pairs in 1990 when we first detected it (Palacios and Alfaro 1991) to 30 pairs in 1991.

We saw also a group of 10 Caspian Terns at La Misión, Baja California (about 35 km north of Ensenada), on 2 May 1991. One pair of this group was copulating; the male remained on its mate for about 5 minutes, alternating its copulatory movements with rest. Evans (1973) observed that Caspian Terns frequently copulate in migration to colony sites and at daytime roosting sites near colonies. Therefore, such behavior is not a good indication that the species may nest on a particular site. At San Antonio del Mar, Baja California, we observed three individuals flying and calling over a dried mud flat on 29 May 1991. Farther to the north Caspian Terns have nested at south San Diego Bay, San Diego County, and Bolsa Chica Ecological Reserve, Orange County, California, since 1941 and 1986 respectively (Unitt 1984, Collins et al. 1991).

Gill and Mewaldt (1983) found that the Pacific coast population of Caspian Terns, unlike that of certain other California coastal species, has increased dramatically since the mid-1960s. They speculated that the San Diego colony could have been the source of most birds that pioneered new colonies in Oregon and Washington. This colony might be also the source of birds for Baja California.

Caspian Terns are apparently attracted to a site by the presence of individuals of the same species. Our observations indicate that most of the Caspian Terns at Laguna Figueroa colonized during June, probably attracted by the isolated pair found

late in May. Danemann (1991) found 80% of the nests at San Ignacio Lagoon early in May, although the number of nests reached its maximum in early June. At Scammon's Lagoon the normal clutch size is two or three eggs (Bancroft 1927), at San Diego Bay, 2.08 (Kirven 1969), suggesting that the terns at Laguna Figueroa were still laying eggs at the time of our last visit.

Our record shows that bird distribution in Baja California is constantly changing and points out the continued need for long-term studies there.

Point Reyes Bird Observatory (PRBO) and Anamaría Escofet (CICESE) provided logistic support. The suggestions of Charles T. Collins, Michael Evans, Barbara Massey and Eric Mellink greatly improved this note. Philip Unitt greatly assisted editing the article.

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Cover photo by © Lawrence Sansone of Los Angeles, California: female Xantus' Hummingbird *(Hylocharis xantusii)*, Ventura, California, February 1988.

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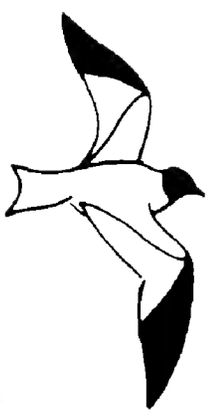

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FIRST RECORD OF THE STEJNEGER'S PETREL IN CALIFORNIA

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OBSERVATION AND DESCRIPTION

On 17 November 1979 we were among 38 observers aboard a chartered fishing boat in the vicinity of the Davidson Seamount, about 55–60 nautical miles west-southwest of Pt. Sur, Monterey County, California. We had departed from Morro Bay the previous evening in hope of reaching waters where small *Pterodroma* ("*Cookilaria*") petrels had been seen the previous month by Robert L. Pitman and Gary Friedrichsen on a scientific survey cruise. It was raining when we departed, but by dawn the rain had stopped, and it was partly cloudy, with 3- to 4-foot swells, light winds, and virtually no whitecaps. Except for the swells, conditions were good for pelagic observations.

During the first half of the morning we saw seven *Cookilaria* petrels. Three of these were identified as Cook's Petrels (*Pterodroma cookii*), three were too distant to be identified to species (Luther et al. 1983, Binford 1983, 1985), but the seventh was somewhat darker above and had a black half-hood over the crown and nape. This bird was observed at about 08:00 for about half a minute as it passed within 50 yards of the starboard side of the boat, crossed the bow, and disappeared off the port bow. The location was close to 35°40'N, 122°30'W, a point about 48 nautical miles southwest of Pt. Sur, and over water about 1800 fathoms deep (over a deep trench southeast of the Davidson Seamount). This bird was flying with a Cook's Petrel and was similar in size and shape to that bird. McCaskie and Richard Stallcup noted the dark cap and drew this to the attention of nearby observers. Roberson watched the bird from the upper deck as it flew past the boat, unaware of the discussion about the head pattern. At this time none of the observers had any previous experience with *Cookilaria*, so the

bird was not immediately identified to species. All those aboard who saw this bird agreed it looked different from the other *Cookilaria* seen that day, but speculated that it might simply be within the plumage variation of the Cook's Petrel.

On 19 November, after McCaskie discussed the appearance of the dark-hooded *Cookilaria* with Dr. Joseph R. Jehl, Jr. of Hubbs–Sea World Research Institute in San Diego, it became clear that the dark-hooded bird was not a Cook's Petrel. Using Harper and Kinsky (1978), McCaskie narrowed the identification of the bird down to a Stejneger's Petrel (*P. longirostris*) or a Pycroft's Petrel (*P. pycrofti*). Additional research revealed that the five "Mas Afuera White-winged Petrels" collected 600 miles off San Francisco in November 1906 (Grinnell and Miller 1944) were in fact Stejneger's Petrels and not White-winged Petrels (*P. leucoptera*) as indicated by Pough (1957), and that Pycroft's Petrel was unrecorded in the North Pacific (Harper and Kinsky 1978). At this point McCaskie discussed the identification of the bird with Jon L. Dunn and others, and concluded the bird was a Stejneger's Petrel. Since that time a number of the original observers have gained field and museum experience with *Cookilaria* and agree the bird was indeed a Stejneger's Petrel.

McCaskie wrote the following account of the observation from notes taken on 17 November 1979, and after learning more about *Cookilaria* on 19 November 1979:

> These two species [Cook's Petrel and Stejneger's Petrel] are remarkably similar in appearance, and it was not until literature was consulted on November 19th that I had any inclination more than one species was involved in the sightings. Both species are the same size and shape with identical flight characteristics. Both species show the same clean white underparts, and both show the same bold "W" pattern across the gray upperparts, the only difference being that the Stejneger's Petrel has a distinct black cap, whereas the Cook's Petrel has the top of the head uniform with the back.
>
> Both species are small, being noticeably smaller than any shearwater species occurring off California but larger than a Red Phalarope (*Phalaropus fulicaria*) [this species was present for direct comparison]. These birds appeared heavier-bodied (plumper) and larger-headed than shearwaters of proportional size, and held their wings with the bend of the wing thrust forward in the same fashion as noted on the Black-capped Petrels (*Pterodroma hasitata*) I have seen off Florida. The flight was extremely rapid with much banking from one side to the other, but the birds remained close to the water surface, with wheeling arcs lifting them a few feet above the water surface. . . .
>
> As an individual would traverse across the water surface beside the boat, we were treated alternately to the stark white of the underparts and the blue-gray (near the color of the upperparts of a Red Phalarope) upperparts with a bold dark "W" pattern crossing the mantle. On both the Cook's Petrel and the Stejneger's Petrel the entire underparts appeared white with no evident black patterning on the underside of the wings (I specifically looked for black patterning on the undersides of the wings and felt strongly that I would have noted any had it been present). The mantle on both species appeared a uniform pale blue-gray with a bold black "W" formed by dark primaries, a black bar along the secondary coverts, and a blackish rump (This "W" was much more pronounced than the same "W" pattern on the New Zealand [Buller's] Shearwater, *Puffinus bulleri*). The bill appeared shorter and thicker than the bill of a similar-sized shearwater, and looked black. . . .

The back of the neck and top of the head on the Stejneger's Petrel were noticably darker than the back [mantle] and contrasted sharply with the back coloration, but the bird had the same white forehead of the Cook's Petrel, merging gradually into the dark of the crown (the head pattern reminded me of that of a winter-plumaged Franklin's Gulls, *Larus pipixcan*). The tail on the Stejneger's Petrel appeared a darker gray than the mantle. No white noted on the outer rectrices.

McCaskie's original sketch of the head pattern on the Stejneger's Petrel is Figure 1. Roberson's notes include the following information about this individual:

This was the first bird [*Cookilaria*] on which I saw the upperparts, and my attention was focused on the distinct dark "M" on the upperparts. . . . I noted only the grayish back and wing-coverts, the dark "M" (primaries, ulnar bar, and lower back), and the evenly colored gray rump and tail (the latter was slightly wedge-shaped). . . .

Jon L. Dunn, Richard A. Erickson, and Richard Stallcup, along with us, initially submitted details to the California Bird Records Committee (CBRC), and the field notes of Louis Bevier and Keith Hansen were added to the CBRC file at a later date. All were generally consistant with the description above, but with some variations. Dunn saw the white forhead and contrasting dark crown but did not note the merging of these features as suggested by McCaskie, seeing "a fairly distinct sharp contrast line segregating the cap and upper nape area from the gray upper back," and likened the head pattern to that of a Franklin's Gull or an immature Arctic Tern (*Sterna paradisaea*). Erickson did not see the head pattern, noting "by the time I heard others shouting about one bird having a black cap it was far enough out that my attempts to see it were unsuccessful." He wrote that the Stejneger's Petrel "was the only one with a conspicuous white forehead. . . . I was impressed from a distance more by the crown/forehead contrast than by the dark cap itself." Stallcup noted that the white forecrown contrasted sharply with an abruptly black cap that "continued on the nape

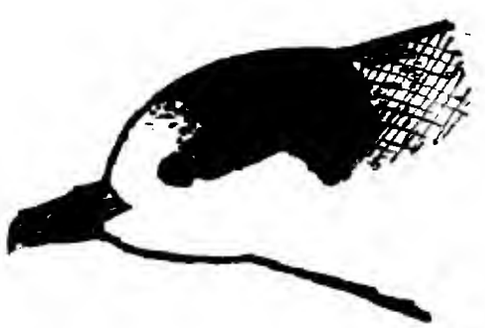

Figure 1. Head of the Stejneger's Petrel seen 17 November 1979.

Sketch by Guy McCaskie

but diffused onto a medium gray back," and that the upperwing was "patterned like a Cook's but darker on the inner wing." Bevier noted that the Stejneger's was darker above than the Cook's, and likened its head pattern to that of a Black Tern (*Chlidonias niger*) or an immature Common Tern (*Sterna hirundo*). Hansen noted the neat black half- hood and that the white of the throat penetrated slightly into the cheek, forming a cheek pattern like that of a Myrtle Warbler (*Dendroica c. coronata*). Sketches submitted by Stallcup and Hansen illustrate white extending up into the face as a short half-collar.

The record was accepted by the CBRC after three circulations (Luther et al. 1983) and constitutes the first record for California. The record was subsequently accepted by the American Birding Association's (ABA) Checklist Committee (American Birding Association 1982) and was included in Appendix A [sight records considered correct] of the American Ornithologists' Union (1983) Check-list. In 1988, on learning that the ABA planed to reconsider the sighting, the CBRC again reviewed the record and reaffirmed acceptance. The ABA re-reviewed the sighting and removed the species from its checklist (DeBenedictis 1991), but, with additional Stejneger's Petrel reports off California, this decision is to be re-evaluated (DeBenedictis pers. comm.).

ELIMINATION OF SIMILAR SPECIES

Information gathered during research cruises by a number of observers, including Stephen F. Bailey, Kimball L. Garrett, Robert L. Pitman, Peter Pyle, and Larry Spear, has added to our knowledge of *Cookilaria* identification. This information is supported by specimens taken by Spear, Pyle, and others, by photographs obtained by Pyle, Pitman, and others, and by detailed field notes made by Bailey, Garrett, and others. McCaskie looked at all of the *Cookilaria* petrels in the National Museum of Natural History in 1980. Roberson spent four months surveying seabirds in the eastern tropical Pacific in 1989 and saw a dozen Stejneger's Petrels, along with hundreds of Cook's and White-winged Petrels. He, with Bailey, also examined most specimens of *Cookilaria* in American museums while researching a paper on the identification of this subgenus (Roberson and Bailey 1991), handling 100 *cookii*, 95 *longirostris*, 95 *leucoptera*, 37 *pycrofti*, and 34 Defilippe's Petrels (*P. defilippiana*). This added knowledge and experience have convinced us that the identification of the 1979 bird near the Davidson Seamount as a Stejneger's Petrel was correct, and that concerns raised during the CBRC review were unfounded.

During the record's four circulations through the CBRC members expressed concern about (1) the brevity of the observation, (2) discrepancies in the descriptions, (3) eliminating the possibility of a White-winged Petrel, and (4) eliminating the possibility of a worn Cook's Petrel showing a dark cap.

The sighting of the 1979 bird near the Davidson Seamount was brief (about half a minute) as is often the case with pelagic birds seen from a boat. However, the bird was rather close to the boat for a *Cookilaria* (these birds appear to avoid boats), and viewing conditions were good. It was seen by at least 30 experienced pelagic observers, seven submitting details that sup-

port the identification of the bird as a Stejneger's Petrel. As such it must be one of the better documented sightings of a pelagic species over the open ocean.

The distribution and seasonality of the Stejneger's Petrel must be taken into account when this sighting is considered. This species was collected within 600 miles of the Davidson Seamount in November 1906, and other individuals have subsequently been reported closer to the California coast at this same time of the year. This record is of special interest only because it is the first within the limit of 200 nautical miles used to define the areas covered by the CBRC and ABA committees.

The Stejneger's Petrel nests on Isla Alejandro Selkirk (= Mas Afuera Island), the westernmost of the Juan Fernandez Islands off Chile, primarily between December and March (De L. Brooke 1987), and follows a long-distance transequatorial migration route that apparently charts a clockwise course through the North Pacific. After nesting, birds are regularly seen southeast of Hawaii (Roberson and Bailey 1991) then apparently move northwest past Hawaii toward the northwestern Pacific. Stejneger's Petrels are found off the east coast of Japan between July and September (Brazil 1991), then appear to move farther north during the late summer and fall, Terrence R. Wahl (pers. comm.) having seen individuals as far north as 45°50'N, 168°13'E at this time of year. Of the five collected off California, one was at 33°06'N, 134°00'W on 14 November 1906, the other four were between 35°40'N, 133°10'W and 35°40'N, 133°14'W on 19 November 1908 (Loomis 1918). Recent sightings in this same general area include one by Peter Pyle and David Sibley at 30°15'N, 123°52'W (about 315 nautical miles southwest of San Nicolas Island) on 9 November 1989, four more by the same two observers at 31°33'N, 123°55'W (about 225 nautical miles southwest of San Nicolas Island) on 14 November 1989 (*Am. Birds* 34:200, 1990 and Pyle pers. comm.), one by Jon L. Dunn at 32°36'N, 122°47'W (about 153 nautical miles southwest of San Miguel Island) on 14 November 1990 (*Am. Birds* 45:150, 1991), and two (one photographed) by observers on an organized pelagic boat trip at 37°19'N, 124°02'W (about 53 nautical miles southwest of Point Reyes) on 17 November 1990 (*Am. Birds* 45:146, 1991). This strongly suggests Stejneger's Petrels are regular, at least during November, over deep water off the California coast.

Discrepancies among the descriptions of the 1979 bird should have been anticipated. It would be most unusual for all observers to note the same marks and independentely arrive at identical descriptions. The observers' descriptions were independent, written without consulting the literature, *contra* the suggestion by DeBenedictis (1991). Roberson, during his 1989 cruise in the Pacific, was struck by the difficulty of seeing the dark half-hood on Stejneger's Petrels once they were flying away, explaining why some observers not specifically looking for this feature failed to see it. The decisive and crisp black "W" across the pale gray upper-parts (blacker than on a Cook's Petrel) of a fresh-plumaged Stejneger's Petrel make this species look darker overall than the Cook's Petrel, and may explain why some observers were attracted to the mantle pattern and failed to note the head pattern.

In assessing the possibility that the 1979 bird might be a White-winged Petrel or a worn Cook's Petrel one must consider the timing of molts. Both the Stejneger's and Cook's Petrels normally molt between April and August after breeding. Both species appear darker in worn than in fresh plumage because the pale tips on the mantle feathers are worn off. Wear thus darkens the head and nape on the Cook's Petrel and reduces the contrast between the dark crown and gray mantle on the Stejneger's Petrel. The white tips on the otherwise dark forecrown feathers wear off, reducing the amount of white on the forecrown of both species. Molting birds typically are missing wing and tail feathers and look "ratty." By November both Stejneger's and Cook's petrels are normally in crisp fresh plumage with new wing and tail feathers.

In contrast, White-winged Petrels, resident in the equatorial Pacific, have a different molt schedule. These birds are known to nest between December and August (Robertson 1985, Watling 1986), and, like other tropical seabirds, may breed year round (Bourne 1983). Many White-winged Petrels are in heavy molt during the northern autumn, when the temperate-zone Cook's and Stejneger's petrels are in fresh plumage.

The plumage of the bird near the Davidson Seamount in 1979 was fresh, as expected for a Stejneger's Petrel in mid-November but not conclusively eliminating the possibility of a White-winged Petrel.

The White-winged Petrel, like the Stejneger's Petrel, has a dark crown, whereas the similar Defilippe's, Cook's, and fresh-plumaged Pycroft's Petrels have pale gray crowns. The well-defined black half-hood of a Stejneger's Petrel contrasts strikingly with the white forecrown, white lower face, and post- auriculars, and with the gray mantle. The white of the face curves up sharply behind the auriculars in a pattern reminiscent of that of a first-winter Franklin's Gull. In the White-winged Petrel the dark hood extends diagonally down from below the eye to the sides of the breast. The Stejneger's Petrel looks white-faced with a neat blackish half-hood, whereas the White-winged Petrel looks black-faced with a white ring around the base of the bill.

Stejneger's and Cook's Petrels have mostly white underwings, whereas the White-winged shows a conspicuous black border, particularly so on the undersides of the primaries.

Although the vast majority of Cook's Petrels are in fresh plumage by November, a few are stll molting then, one example being a bird captured alive in Santa Cruz, California, on 17 November 1983 (Tyler and Burton 1986). This bird appears to be completely out of the normal molt sequence for this species and was possibly sick. The specimen, California Academy of Sciences 71447, shows heavy tail and body molt and a suggestion of a dark hood. The pattern, however, is unlike that found on any Stejneger's Petrel. Roberson found no overlap in nape/mantle contrast between any Stejneger's Petrel and Cook's or Pycroft's Petrel examined during his study of museum specimens, even when he compared the least worn Stejneger's with the most worn Cook's and Pycroft's. He found that all Cook's Petrels showing darkness on the head also had worn or molting wings and tail.

Cook's Petrels never prominently show the white of the cheeks extending backward in a half-collar as noted and/or sketched by McCaskie, Dunn,

Stallcup, Bevier, and Hansen for the petrel near the Davidson Seamount. Stejneger's Petrel shares this feature only with the Defilippe's and most Pycroft's Petrels; it is never present on the White-winged Petrel.

All Cook's Petrels show some white along the outer edge of the tail; some individuals, such as one photographed over the Davidson Seamount on 17 November 1979 (Roberson 1980), show a mostly white tail with a thin dark central stripe. At sea, the usually extensive white in the tail of a Cook's Petrel makes that species easy to identify, even before other features can be confirmed. Stejneger's Petrels rarely show white in the tail; if so, it is limited to a small amount on the outer rectrix. Observers who described the tail on the Davidson Seamount bird saw no white. This alone does not eliminate a Cook's Petrel but is consistent with the Stejneger's Petrel.

SUMMARY

On 17 November 1979 several experienced observers saw and described a dark-capped *Cookilaria* petrel near the Davidson Seamount off Point Sur, California. The bird was in view for about half a minute. The descriptions of it, although not identical, support its identification as a fresh-plumaged Stejneger's Petrel, and eliminate the possibility of it being a White-winged Petrel, a worn Cook's Petrel, or any other *Cookilaria*. The record was accepted by the California Bird Records Committee and represents the first Stejneger's Petrel identified within the area covered by the California Bird Records and American Birding Association Checklist committees.

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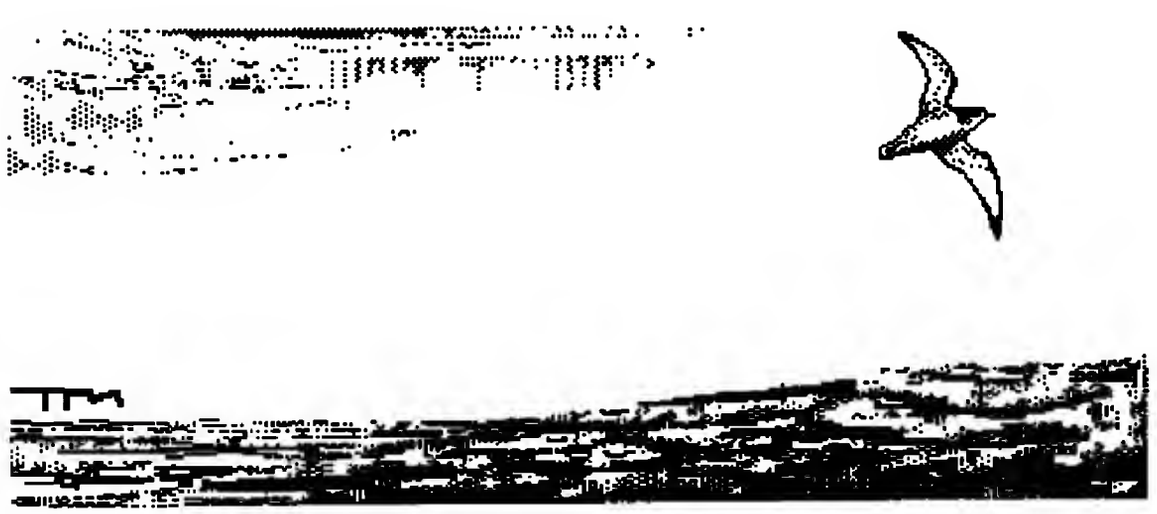

Stejneger's Petrel *Sketch by Tim Manolis*

NOTEWORTHY BIRD OBSERVATIONS FROM BAJA CALIFORNIA, MEXICO

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Despite Baja California's proximity to heavily birded southern California, its avifauna remains surprisingly poorly known. The paucity of data reqarding birds in Baja California was highlighted by Wilbur (1987). In particular it is apparent that few ornithologists have studied Baja California in summer, i.e., the period between a species' spring and autumn migration periods. For example, the occurrence in June 1991 of summering Common (*Gavia immer*) and Pacific (*G. pacifica*) loons, Great Egrets (*Casmerodius albus*), Greater Yellowlegs (*Tringa melanoleuca*), Long-billed Curlews (*Numenius americanus*), Short-billed Dowitchers (*Limnodromus griseus*), and California Gulls (*Larus californicus*), all seen at Bahía San Quintín, would barely be worth noting had they been in southern California, yet there appear to be no previous published summer records for these species in Baja California! [Llinas et al. (1989) and Escofet et al. (1988) did not specifically distinguish oversummering individuals, and the former's definition of "summer" more accurately reflects autumn for shorebirds.]

While much of the increased knowledge in recent years can be attributed to improved accessibility, real changes in bird distribution are occurring in conjunction with man's impact on the environment. For example, intensive cultivation of the Llano de Magdalena around Ciudad Constitución and Ciudad Insurgentes, dating from the 1960s (Automobile Club of Southern California 1990), has created habitat for White-tailed Kites and Western Meadowlarks, while the reservoir at Ejido Héroes de La Independencia has allowed Tricolored and Yellow-headed blackbirds to nest side by side.

This paper is based mostly on our field work in Baja California from 1 to 20 June 1991, when we twice drove the entire length of the peninsula. Our primary objective was to determine summer and breeding distributions of birds, particularly in the three main sierras (Sierra de La Laguna, Sierra San Pedro Mártir, and Sierra Juárez). We also include a few records from our trips to Baja California in December 1982, December 1983, January and February 1988, and October 1991, and some observations contributed by other observers. Figures 1 and 2 locate places mentioned in the species accounts.

In total we detail new information concerning 52 species in Baja California, including three species new to the peninsula and four probable breeding species unreported from Baja California (and Mexico as a whole) in summer.

SPECIES ACCOUNTS

Least Grebe *Tachybaptus dominicus*. At Mulegé, on 5 June 1991, we saw a pair and a single adult, and on 13 June 1991 a pair, an adult with two full-grown juveniles, and an adult with two half-grown juveniles. We estimated a maximum population of

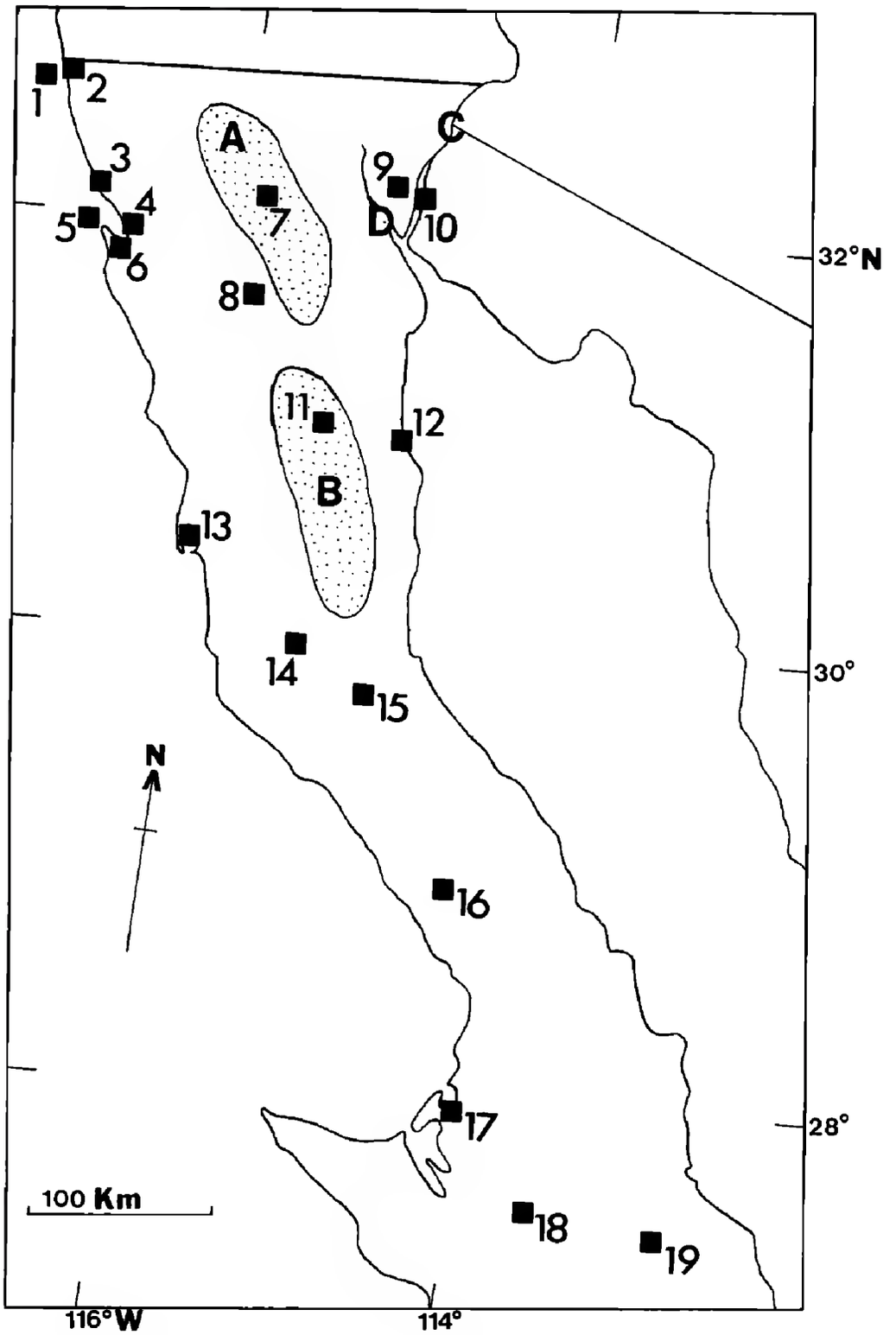

Figure 1. Northern Baja California, showing locations mentioned in the species accounts. Stippled areas represent sierras. A, Sierra Júarez; B, Sierra San Pedro Mártir; C, Río Colorado; D, Río Hardy. 1, Islas Los Coronados; 2, Tijuana; 3, La Misión; 4, Ensenada; 5, Islas de Todos Santos; 6, Estero de Punta Banda; 7, Laguna Hanson; 8, Ejido Héroes de la Independencia; 9, Durango; 10, Coahuila; 11, National Observatory (from the observatory, Vallecitos meadow is approximately 4 km to the south-southeast, La Grulla meadow approximately 17 km to the south); 12, San Felipe; 13, Bahía de San Quintín (La Pinta Pond is just south of the bay, see Palacios and Alfaro 1991); 14, San Fernando; 15, Cataviña; 16, Bahía de Los Angeles junction; 17, Guerrero Negro; 18, Ejido Vizcaino; 19, San Ignacio.

about five pairs along the river at Mulegé, an area from which there are no historic records. Least Grebes were found at Mulegé in 1987 (T. E. Wurster pers. comm.) and 1988 (D. Wimpfheimer pers. comm.), and it seems that they have been overlooked there (cf. Belding's Yellowthroat) rather than being recent arrivals. The last published records of this species in the peninsula are from 1930 (Grinnell 1928, Wilbur 1987).

Clark's Grebe *Aechmophorus clarkii*. As Wilbur (1987) pointed out, virtually nothing appears to be known, or at least published, regarding the status of Clark's vs. Western Grebe (*A. occidentalis*) in Baja California. We here put on record our observations of Clark's Grebe (and numbers of Westerns simultaneously present): Bahía San Quintín, 14 June 1991, one Clark's, three Western; Guerrero Negro, 1 December 1982, one Clark's, 12 Western; 9 December 1983, 12 Clark's, 20 Western; San Ignacio, 9 December 1983, two Clark's, one Western; Bahía

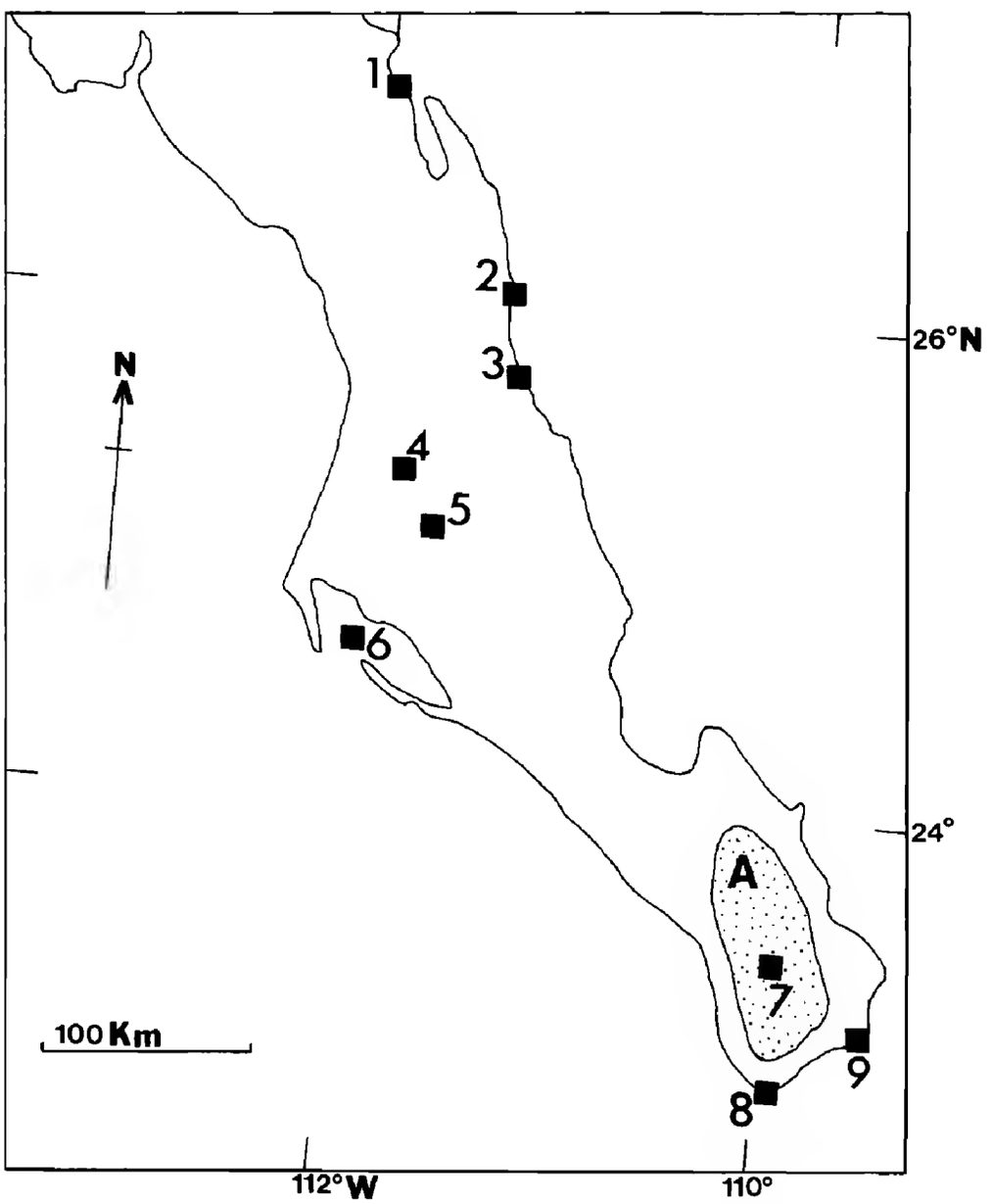

Figure 2. Southern Baja California, showing locations mentioned in the species accounts. A (stippled), Sierra de La Laguna. 1, Mulegé; 2, Loreto; 3, Tripui resort; 4, Ciudad Insurgentes; 5, Ciudad Constitución; 6, Bahía Magdalena; 7, La Laguna; 8, Cabo San Lucas; 9, San José del Cabo.

Magdalena, 31 January to 1 February 1988, 12 Clark's, 43 Western; San José del Cabo, 4 February 1988, one Clark's, two Western; 26 February 1988, one Clark's, one Western.

Wedge-rumped Storm-Petrel *Oceanodroma tethys*. In the company of J. and K. Horton we saw two Wedge-rumped Storm-Petrels, in loose association with numerous Least Storm-Petrels (*O. microsoma*), at 25°50'N, 110°00'W, about 40 km southeast of Loreto, on 12 June 1991. While Wilbur (1987) reported only one previous record from the Gulf of California, J. and K. Horton (pers. comm.) have, since 1989, regularly seen up to ten Wedge-rumped Storm-Petrels off Loreto between May and July. We have seen thousands of Wedge-rumped Storm-Petrels in the tropical Pacific Ocean and are very familiar with the species. The Loreto birds' small size (similar to the Least Storm-Petrel's), blackish plumage with a bold, very long white patch on the upper tail coverts, and flight manner enabled us to identify them readily.

American White Pelican *Pelecanus erythrorhynchus*. We saw five immatures along the Río Hardy on 20 June 1991, which suggests that some birds oversummer in the Río Colorado delta. Reported only as a "winter visitor in small numbers" to Baja California by Wilbur (1987), although Howell and Pyle (1990) saw 450 at Laguna Salada on 15 May 1989.

Magnificent Frigatebird *Fregata magnificens*. We saw one soaring west over Ciudad Constitución at 1920 on 11 June 1991, and 34 heading north at kilometer post 45 between Ciudad Insurgentes and Loreto, elevation 300 m, at 0820 on 12 June 1991. Although Wilbur (1987) reported only one previous inland record from Baja California, Magnificent Frigatebirds commonly cross the peninsula via the Santo Domingo Valley (R. Rodriguez-Estrella and E. Palacios pers. comm.).

Least Bittern *Ixobrychus exilis*. Single males at San Ignacio, 5 June 1991, and near Durango, in the Río Colorado delta, 20 June 1991, suggest the species is an overlooked breeding resident in the peninsula.

White-faced Ibis *Plegadis chihi*. One immature at San José del Cabo, 11 June 1991, is the first of this species reported from Baja California in summer (cf. Wilbur 1987).

Black-bellied Whistling-Duck *Dendrocygna autumnalis*. Our sighting of a wary full-winged adult at San José del Cabo, 11 June 1991, represents the first record of this unmistakable neotropical duck for Baja California. Presumably the bird was a wanderer from the Mexican mainland where the species is common.

Brant *Branta bernicla*. One at Estero de Punta Banda, 2 June 1991, and 18 at Bahía San Quintín, 15 June 1991 appear to constitute the first summer records from Baja California (cf. Wilbur 1987). A few Brant typically oversummer in southern California (Garrett and Dunn 1981).

Mallard *Anas platyrhynchos*. On 19 June 1991 we saw a female with nine small ducklings on the reservoir at kilometer post 96 on Highway 3, 8 km south of Ejido Héroes de la Independencia. There were also 11 other Mallards (including four pairs) at the reservoir. Other breeding records for the peninsula were in 1925 (Huey 1928) and May 1989, near La Misión (Howell and Pyle 1990).

Northern Pintail *Anas acuta*. In 1991 we saw 50 at Guerrero Negro on 4 June and three at the reservoir 8 km south of Ejido Héroes de la Independencia on 19 June. There is only one previous summer record from Baja California, in June 1926 (Grinnell 1928); Wilbur (1987) mistakenly indicated that Grinnell (1928) cited a July record.

Blue-winged Teal *Anas discors*. A male at the reservoir 8 km south of Ejido Héroes de la Independencia, 19 June 1991, is the first reported for summer in Baja California (cf. Wilbur 1987).

Cinnamon Teal *Anas cyanoptera*. We saw a female with nine ducklings, plus two courting pairs and three single males, at the reservoir 8 km south of Ejido Héroes de

la Independencia on 19 June 1991, and a pair with one small duckling on the Río Hardy on 20 June 1991. Howell and Pyle (1990) reported other recent summer observations in northern Baja California.

Gadwall *Anas strepera*. A pair at Ejido Héroes de la Independencia and three males at the reservoir 8 km south of Ejido Héroes de la Independencia, all on 19 June 1991, are the first reported for summer in Baja California (cf. Wilbur 1987).

Redhead *Aythya americana*. A pair at Ejido Héroes de la Independencia and another pair and single male at the reservoir 8 km south of Ejido Héroes de la Independencia, all on 19 June 1991, are the first reported in summer in Baja California (cf. Wilbur 1987).

White-tailed Kite *Elanus leucurus*. We observed five birds (including one adult and two juveniles) 11 km south of Ciudad Insurgentes on 12 June 1991. In addition, two adults were seen near Ciudad Insurgentes in November 1989 (R. Rodriguez-Estrella pers. comm.). Although the species' range has increased greatly in North America in recent years, Wilbur (1987) reported that no range expansion had been noted in Baja California. These observations represent a range extension of 400 km south from the nearest known point of occurrence on the peninsula. We follow Amadon and Bull (1988) and Sibley and Monroe (1990) in not considering *leucurus* conspecific with the quite different *caeruleus* of the Old World.

Laughing Gull *Larus atricilla*. On 20 June 1991, at San Felipe, we observed 24 alternate-plumaged adults heading south offshore. These birds were probably dispersing from the recently discovered colony in the Río Colorado delta (Palacios and Mellink 1992). Other than these records, the species is known only as a winter visitor in Baja California, with one record as early as September (Wilbur 1987).

Franklin's Gull *Larus pipixcan*. One adult at Guerrero Negro, 1–2 December 1982, appears to be only the sixth recorded in Baja California (cf. Wilbur 1987); four of the records fall between late November and mid December.

Heermann's Gull *Larus heermanni*. An adult on the reservoir at Ejido Héroes de la Independencia, elevation 1000 m, on 19 June 1991, is the first of this species reported for the interior of Baja California (cf. Wilbur 1987), being 105 km from the Gulf of California and 65 km from the Pacific Ocean.

Gull-billed Tern *Sterna nilotica*. This species appears to be a common post-breeding visitor to the Río Colorado delta and northeast coast. We saw two groups, totaling 37 alternate-plumaged adults (most apparently paired), at San Felipe, and 23 alternate-plumaged adults at the Río Hardy, all on 20 June 1991. Wilbur (1987) reported only a few records and considered the species' status "uncertain."

Forster's Tern *Sterna forsteri*. Palacios and Alfaro (1991) reported the recent discovery of the first known breeding colonies of this species in Baja California. The La Pinta Pond colony was still active in 1991, with 30–35 birds (including 13 sitting on nests, a pair feeding two chicks, and three first-summer birds) on 14 June. A second-summer bird at the reservoir 8 km south of Ejido Héroes de la Independencia, 19 June 1991, a first-summer bird at San Felipe, 20 June 1991, and nine first-summer birds at the Río Hardy, 20 June 1991, appear to constitute the only other summer records for Baja California (cf. Wilbur 1987).

Black Skimmer *Rynchops niger*. On 20 June 1991 we saw one at San Felipe and an alternate-plumaged adult at the Río Hardy. It is likely that Black Skimmers are regular post-breeding visitors to these areas as are Laughing Gulls and Gull-billed Terns. Wilbur (1987) mentioned only records from the northwest coast in winter, but Palacios and Alfaro (in press) reported skimmers in Baja California throughout the year, at several locations along the Pacific coast south to Laguna Ojo de Liebre, and also in the Bay of La Paz.

Band-tailed Pigeon *Columba fasciata*. One flew over Vallecitos, in the Sierra San Pedro Mártir, on 16 June 1991. This represents the first summer record from

northern Baja California, all other records there being from September to April (Grinnell 1928, Wilbur 1987).

Spotted Dove *Streptopelia chinensis*. Although the A.O.U. (1983) included extreme northwestern Baja California in this species' range, the source for its inclusion is unclear (B. L. Monroe pers. comm.), and the species was not mentioned by Wilbur (1987). Spotted Doves may be resident in Tijuana, having been established in San Diego since the 1950s (Unitt 1984), although in San Diego they are restricted mostly to an area 10–12 km north of the international border (P. Unitt pers. comm.). The only specific Mexican records we are aware of are of up to three birds at the Hospital del Carmen, Tijuana, from August to October 1990 (G. McCaskie pers. comm.) and one we saw on the southern edge of Tijuana, 1 June 1991.

Ruddy Ground-Dove *Columbina talpacoti*. An adult male at San José del Cabo, 11 June 1991, is the first recorded for Baja California. The bird associated loosely with Common Ground-Doves (*C. passerina*) and is a species with which we are very familiar from mainland Mexico. The Ruddy Ground-Dove has been reported increasingly in the southwestern U.S. in recent years, although mostly from autumn into winter (Dunn and Garrett 1990); thus its occurrence in Baja California is not unexpected.

Groove-billed Ani *Crotophaga sulcirostris*. On 10 November 1985, J. and K. Horton observed and photographed a Groove-billed Ani at the Tripui resort, about 30 km south of Loreto (Figure 3). This isolated record presumably represents a vagrant from mainland Mexico and is the first of the species in Baja California this century; Groove-billed Anis formerly nested in the Cape District (Grinnell 1928).

Figure 3. Groove-billed Ani at the Tripui resort, 10 November 1985.

Photo by Jim and Karen Horton

Whip-poor-will *Caprimulgus vociferus*. We clearly heard seven or eight Whip-poor-wills at La Laguna, the night of 8 June 1991, indicating the species to be a fairly common summer resident there. The birds gave the relatively slow, burry song typical of birds in the southwestern U.S. and Mexico. Banks (1967) also heard Whip-poor-wills at La Laguna in May 1965 (not 1963 as cited by Wilbur 1987).

Broad-billed Hummingbird *Cynanthus latirostris*. J. and K. Horton observed and photographed an adult male at their feeder at El Tripui resort for four consecutive winters (mid-October to mid-January) from 1985/86 to 1988/89. The only prior report from Baja California is of several at Cabo San Lucas in the late autumn of 1968 (Wilbur 1987).

Anna's Hummingbird *Calypte anna*. J. and K. Horton observed a male at their feeder at El Tripui resort, 12 October 1985. This location is about 400 km south of the southernmost from which the species had been reported previously, although Howell and P. Pyle saw up to four Anna's Hummingbirds at Guerrero Negro on 11 and 12 October 1991. These are the first records of this species for Baja California Sur (cf. Wilbur 1987).

Dusky Flycatcher *Empidonax oberholseri*. We saw one or two birds, including a singing individual, in an aspen grove at 2700 m elevation in the Sierra San Pedro Mártir, 17 June 1991. The species was also found at this site (about 2 km southeast of the National Observatory) on 30 June 1984, when R. E. Webster (pers. comm.) noted at least two pairs, and on 3 and 4 July 1987 (T. E. Wurster pers. comm.). Although there are no breeding records for this species in Mexico, these observations suggest nesting in the Sierra San Pedro Mártir.

Tropical Kingbird *Tyrannus melancholicus*. We saw one at the Nopolo tourist development just south of Loreto, 13 June 1991. While the species is a regular autumn through winter visitor in the Cape District (Howell and Pyle 1988, Wilbur 1987, pers. obs.) there appear to be no previous spring or summer records from the peninsula.

Thick-billed Kingbird *Tyrannus crassirostris*. One at San José del Cabo, 26 February 1988, makes only the fourth record for Baja California, the others, also in the Cape District, being in January 1984 (R. Stallcup pers. comm.) and December 1986 and January 1987 (Collins and Atwood 1990).

Hermit Thrush *Catharus guttatus*. On 17 June 1991 we heard, saw, and tape-recorded two or three territorial singing Hermit Thrushes in the same aspen grove where we noted the Dusky Flycatchers (see above). R. E. Webster (pers. comm.) found five Hermit Thrushes in the same area, 30 June 1984, and T. E. Wurster (pers. comm.) noted three in the same place on 5 July 1985. This species is not known to breed in Mexico but these observations suggest that it does so in the Sierra San Pedro Mártir.

American Robin *Turdus migratorius*. Near Laguna Hanson, in the Sierra Juárez, we saw a pair (the female sitting on a nest) and heard three or four other birds singing, 18–19 June 1991. This confirms the American Robin as a breeding species in northern Baja California, following the reports of Howell and Pyle (1990), who discovered three or four Robins (one singing) and an old Robin nest at the same site in May 1989. Nesting by Robins in the Sierra Juárez may be fairly recent, as the species has colonized the mountains of San Diego County in the past 50 years (Unitt 1984).

American Pipit *Anthus rubescens*. The early morning of 16 June 1991 an American Pipit made repeated song flights at Vallecitos meadow, at 2450 m elevation in the Sierra San Pedro Mártir. This record and that of three at La Grulla meadow, 3–5 August 1977 (Wilbur 1987), suggest the possibility of a small breeding population in the boulder-strewn meadows of the Sierra San Pedro Mártir. There is one record of probable breeding for southern California (Garrett and Dunn 1981).

European Starling *Sturnus vulgaris*. On 14 June 1991 we noted adults feeding nestlings at Guerrero Negro; the species was also breeding at Cataviña (adults with newly fledged juveniles). We also saw one adult at the Bahía de los Angeles junction on Highway 1 and two at Rancho Caracol, between Ejido Vizcaino and San Ignacio (about latitude 27°30'N). This southward expansion has been mirrored on the Mexican mainland opposite, where we saw single Starlings 10 km north of Los Mochis and at the Río Sinaloa crossing just north of Culiacan, both on 24 June 1991. The previous farthest south confirmed breeding in Baja California was at San Fernando (30°N), with winter records south to Guerrero Negro (Wilbur 1987).

Solitary Vireo *Vireo solitarius*. We noted eight birds, most singing but including at least one agitated adult carrying food, at about 2700 m elevation in the Sierra San Pedro Mártir, 16 June 1991. T. E. Wurster (pers. comm.) found a nest with young in the same area, 3 July 1987. Wilbur (1987) mentioned May records of Solitary Vireos from this sierra but stated that they "almost certainly do not nest there," although Grinnell (1928) considered the species "fairly common in summer" in the Sierra San Pedro Mártir. Our observations support Grinnell's evaluation.

Warbling Vireo *Vireo gilvus*. On 16 and 17 June 1991 Warbling Vireos were fairly common and presumed breeding (singing, paired, and carrying food) in the Sierra San Pedro Mártir, from at least 1800 to 2700 m elevation. We find it hard to explain the lack of previous summer records from the sierra (cf. Grinnell 1928, Wilbur 1987). We also saw a migrant at Guerrero Negro on 5 June 1991.

Red-eyed Vireo *Vireo olivaceus*. We observed one at Guerrero Negro, at times side by side with the preceding species, on 5 June 1991. Red-eyed Vireos are regular spring vagrants to California and that this is the first record of the species in Baja California can be readily attributed to lack of observers.

Tennessee Warbler *Vermivora peregrina*. One at Cabo San Lucas, 6 February 1988, represents only the sixth record for Baja California, the second in winter (cf. Keith and Stejskal 1987, Wilbur 1987).

Orange-crowned Warbler *Vermivora celata*. We saw one and heard another singing in wooded arroyos of the foothills between La Misión and Ensenada, along Highway 1, on 1 June 1991. The only other summer records from Baja California are from Islas Los Coronados, Islas de Todos Santos, and the "western Sierra San Pedro Mártir" (Wilbur 1987).

Nashville Warbler *Vermivora ruficapilla*. One at Cabo San Lucas, 4 February 1988, is the first recorded in winter from Baja California as well as the first reported south of 26°N (cf. Wilbur 1987).

Belding's Yellowthroat *Geothlypis beldingi*. Belding's Yellowthroats were common along the river at Mulegé; we estimated a population of at least ten pairs there, with several adults carrying food, on 5 and 13 June 1991. This population appears to have been overlooked, as there are no historic reports from Mulegé (Grinnell 1928, Wilbur 1987), although D. Wimpfheimer (pers. comm.) noted the species there in 1988.

Before hearing its song, we thought that *G. beldingi* might simply be a large allopatric form of the Common Yellowthroat (*G. trichas*), as considered by some authors (cf. A.O.U. 1983). The song, however, which apparently has not been described or previously recorded, is notably different from the Common Yellowthroat's. It is strikingly more powerful and richer; the sequence differs from Common's typical *wi wich-uh-te* in that the last part of the main phrase comes first, i.e., *wi te-wich-uh*.

Summer Tanager *Piranga rubra*. Howell's sighting of a female at Cabo San Lucas, 15 December 1983, supports the possibility of a small wintering population in the Cape District. Wilbur (1987) called this species "presumably only a rare migrant" away from the Río Colorado, but at the same time cited a February record from San José del Cabo.

Western Tanager *Piranga ludoviciana*. Wilbur (1987) indicated that "a few may winter in the southern Cape District." Grinnell (1928), however, reported several winter records from the Cape District. We, like other observers (R. Rodriguez-Estrella and P. Unitt pers. comm.), have found Western Tanagers to be fairly common in the Cape District in winter; Wilbur's statement was obviously an error.

Green-tailed Towhee *Pipilo chlorurus*. On 16 June 1991, at 2700 m elevation in the Sierra San Pedro Mártir, we observed an agitated pair of Green-tailed Towhees behaving as if they had a nest. We also saw and tape-recorded two different singing birds. These are the first reported summer records of this species from Baja California and suggest that Green-tailed Towhees breed there; this is not particularly surprising since they breed commonly at suitable elevations in the mountains of southern California (Garrett and Dunn 1981).

Chipping Sparrow *Spizella passerina*. Around Laguna Hanson, 18–19 June 1991, we found Chipping Sparrows to be fairly common. We saw four juveniles (apparently from three broods) being attended by adults and three singing adults. Neither Grinnell (1928) nor Wilbur (1987) reported any summer records from the Sierra Juárez, although Howell and Pyle (1990) found the species common and singing there in May 1989. We spent most of 19 June searching, without success, for Brewer's Sparrows (*S. breweri*), suspected to breed at Laguna Hanson by Wilbur (1987).

Song Sparrow *Melospiza melodia*. At Cataviña we noted four or five pairs, with adults feeding recently fledged juveniles, on 2, 3, and 14 June 1991, indicating the persistence of the population discovered at this oasis in 1989 (Howell and Pyle 1990). These birds had blackish-streaked underparts like *M. m. cooperi* to the north rather than the reddish-streaked underparts of *M. m. rivularis* to the south.

Tricolored Blackbird *Agelaius tricolor*. It was a surprise to find a colony of 30 to 50 pairs (adults carrying food into a dense tule marsh) at Ejido Héroes de la Independencia on 19 June 1991, away from previously reported sites. The marsh also held 10 to 20 pairs of Red-winged Blackbirds (*A. phoeniceus*). There are few recent records of Tricolored Blackbirds from Baja California, particularly in summer, and the last reported breeding in the peninsula appears to have been in 1885 (Grinnell 1928, Wilbur 1987).

Western Meadowlark *Sturnella neglecta*. One seen 2 km south of Ciudad Insurgentes on 12 June 1991 was 700 km south of any other mainland breeding season record (cf. Wilbur 1987, pers. obs.). We did not search the area intensively, but it seems likely that Western Meadowlarks will colonize (or have colonized?) this relatively new agricultural region.

Yellow-headed Blackbird *Xanthocephalus xanthocephalus*. On 19 June 1991 we saw three pairs, at least two of which were attending begging juveniles, at Ejido Héroes de la Independencia, a new nesting location for this species. In the Río Colorado delta we saw 12–15 pairs feeding fledglings, and apparently also nestlings, in an irrigation ditch 3 km west of Durango. Howell and Pyle (1990) had found territorial Yellow-headed Blackbirds at both places in May 1989. We also saw three or four other males in the Río Colorado delta between Durango and Coahuila, 19 June 1991.

Brewer's Blackbird *Euphagus cyanocephalus*. A male at Cataviña on 2, 3, and 14 June 1991 constitutes the southernmost breeding season report for the peninsula (cf. Wilbur 1987).

Brown-headed Cowbird *Molothrus ater*. In June 1991 we noted several Brown-headed Cowbirds between Palo Verde (21 km north of Mulegé) and San José del Cabo: Palo Verde, one female on 13 June; Mulegé, one male on 5 June, two or three heard on 13 June; Tripui resort, one male and one female on 12 June (present there since the early 1980s, J. and K. Horton pers. comm.); kilometer post 37, between Ciudad Insurgentes and Loreto, one male and one female on 12 June; between

Ciudad Constitución and Ciudad Insurgentes, one male on 12 June; Ciudad Constitución, one male and two females on 12 June; San José del Cabo, one male on 11 June. The farthest south this species had been reported previously in Baja California in summer was San Fernando (Wilbur 1987).

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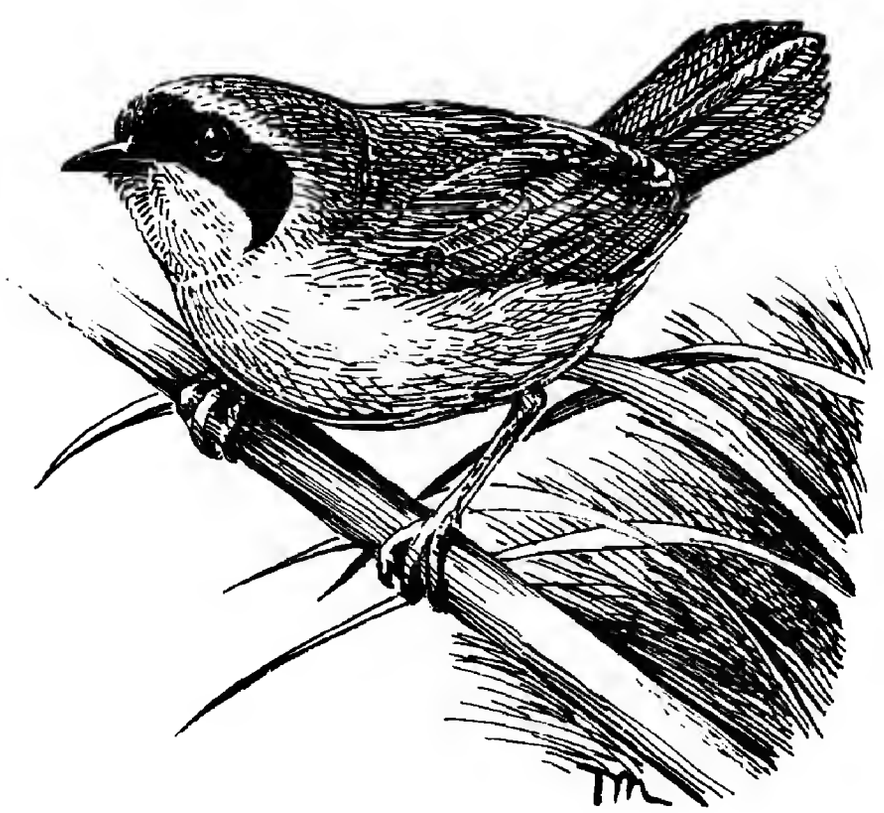

Belding's Yellowthroat *Sketch by Tim Manolis*

CORRIGENDUM

I am indebted to Rich Stallcup for pointing out a record of the Thick-billed Kingbird (*Tyrannus crassirostris*) in Baja California prior to those reported by C. T. Collins and J. L. Atwood (First Records of the Thick-billed Kingbird in Baja California, Mexico, W. Birds 21:75–76, 1990). The bird was seen 10 km north of El Triunfo, Baja California Sur, on 27 January 1984 by Stallcup and others [Notes and News, MBA "Bulletin Board," Newsletter of the Mexican Birding Association 1 (87-3): 7, 1987] and may have been the same bird seen at or near this locality by Collins and Atwood on 13 December 1986, as wintering Thick-billed Kingbirds and other flycatchers are well known to return to same site year after year. The need for this correction, however, serves to illustrate a growing problem. Data "published" in mimeographed newsletters or, for that matter, in-house reports to government agencies, environmental consulting firms, or other businesses, are quickly lost to the scientific community. Only through publication in periodicals or books made widely available both in libraries and through circulation to the public does information become part of the scientific literature. The focus on short-term return so entrenched in American culture is a threat to science as well as to so many other aspects of our long-term well-being. The responsibility of each of us to support scientific periodicals, institutions, and values is greater now than ever.

Philip Unitt
Editor

NOTES

FOOD STORAGE BY ACORN WOODPECKERS AT THE SANTA ROSA PLATEAU PRESERVE, SANTA ANA MOUNTAINS, CALIFORNIA

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The Acorn Woodpecker (*Melanerpes formicivorus*) is well known for its habit of storing food, especially acorns, in "granaries" (e.g., Ritter 1938, Bent 1940, MacRoberts and MacRoberts 1976, Koenig and Mumme 1987). However, the food items stored and storage sites used may be expected to vary geographically, depending on the availability of food items and potential storage sites. This note reports on food items stored and storage sites used by Acorn Woodpeckers at the Santa Rosa Plateau Preserve, Riverside County, California.

The Santa Rosa Plateau Preserve was established by the Nature Conservancy in 1984 to protect vernal pools on three lava-capped mesas of the Santa Rosa Plateau, a distinct topographic unit of rolling hills covered with grassland, oak woodland, and chaparral located at the southeastern end of the Santa Ana Mountains (Lathrop and Thorne 1978, 1985). Two species of oaks, the Engelmann oak (*Quercus engelmannii*) and coast live oak (*Q. agrifolia*), dominate the preserve's oak woodland community (Lathrop and Zuill 1984, Lathrop and Wong 1986). The Acorn Woodpecker is a conspicuous resident of these woodlands, occurring in small family groups.

In November 1984, on 27 March 1985, and on 22 August 1991, we searched for acorns, presumably stored by Acorn Woodpeckers, in porphyritic basalt boulders in or near oak woodland scattered along an approximately 0.5-km ridge at the edge of Mesa de Colorado. On 23 March 1990, we inventoried food items stored by Acorn Woodpeckers in wooden fence posts, a rock wall, and granitic boulders at Rancho Santa Rosa, where the surrounding trees included introduced blue gum (*Eucalyptus globulus*), pecan (*Carya illinoensis*), olive (*Olea europaea*), and fan palm (*Washingtonia filifera*) in addition to the native oaks. On 22 August 1991, we searched for additional food items stored in granitic boulders 100 m west of the wooden fence posts. During other visits we estimated the proportion of *Q. enaelmannii* and *Q. agrifolia* acorns stored in Acorn Woodpecker granaries in native oak woodland 1 km or more from the Rancho Santa Rosa site.

In November 1984, Baker found approximately 20 small acorns stored in numerous holes (0.3–1 cm wide and 5–10 cm deep) on approximately 1 m^2 of the surface of a boulder of porphyritic basalt (Figure 1) along a ridge of Mesa de Colorado. On 27 March 1985, only three acorns remained inside the boulder, and none was present on 22 August 1991. Several nearby boulders possessed holes suitable for the storage of acorns, but only one more acorn was found on 27 March 1985. The acorns were all from *Q. agrifolia*. They were tightly inserted with the cap end out,

the usual method of storage by Acorn Woodpeckers (MacRoberts and MacRoberts 1976). T. Griggs (pers. comm.) photographed acorns in the same boulder in early 1984; a color slide is on file at the headquarters of the Santa Rosa Plateau Preserve (G. Bell pers. comm.).

On 23 March 1990, we found that 66.6% of the food items stored by Acorn Woodpeckers in holes drilled into wooden fence posts at Rancho Santa Ana consisted of acorns (apparently 100% from *Q. agrifolia*), while 26.1% were pecans and 7.3% were olives (n = 2,474 items sampled; Figure 2). Four pecans were wedged into the ends of a metal pipe on top of a gate. Along a 65-m section of a rock wall roughly 1 m tall and 0.5 m wide (beside the fence posts), we found 117 acorns of *Q. agrifolia* tightly inserted into cracks or holes between basaltic rocks or on rock surfaces; no pecans or olives were found. We also found five *Q. agrifolia* acorns wedged into cracks in three granitic boulders within 25 m of the rock wall. Most of the acorns stored in rock crevices were tightly inserted with the cap end out, indicating that they were stored by Acorn Woodpeckers. Small numbers of *Q. agrifolia* acorns were also stored in the wooden sides of a barn, in the trunks of several large fan palms at the ranch, and between the wooden window frames and plaster wall of an old building. *Eucalyptus globulus* seeds and *Q. agrifolia* acorns

Figure 1. Porphyritic basalt boulder where acorns were found in small holes during 1984 and 1985 but not when photographed in 1991.

Photo by Floyd E. Hayes

were found loose in the larger crevices along the rock wall, but because they were not tightly wedged in, we believe they were deposited by rodents rather than woodpeckers. On 22 August 1991, we found 30 *Q. agrifolia* acorns wedged into narrow cracks on six granitic boulders 100 m west of the fence posts; one overhanging vertical crack contained 14 acorns (Figure 3).

In other Acorn Woodpecker granaries in oak woodland away from Rancho Santa Rosa (> 1 km), we found that 90–95% of the acorns were from *Q. agrifolia* and only 5–10% were from *Q. engelmannii*. Obtaining exact percentages was difficult because the acorns were present in large quantities and usually had to be pulled out to be identified. The acorns were stored in the trunks and lower limbs of dead or live oaks of both species. No pecans or olives were found.

Acorn Woodpeckers usually store acorns in trunks and large branches of trees, but other locations such as telephone poles, fence posts, eaves of buildings, pine cones, and clay roof tiles also suffice (MacRoberts and MacRoberts 1976, Jehl 1979). This appears to be the first report of Acorn Woodpeckers storing acorns in rocks and metal objects. Crevices of almost any size or shape may be sufficient to release storage behavior in Acorn Woodpeckers, especially if storage space is limited (Jehl 1979, Koenig and Mumme 1987). Our finding acorns in the basaltic boulder irregularly suggests that acorns are more likely to be stored in rocks during years with surplus acorn crops.

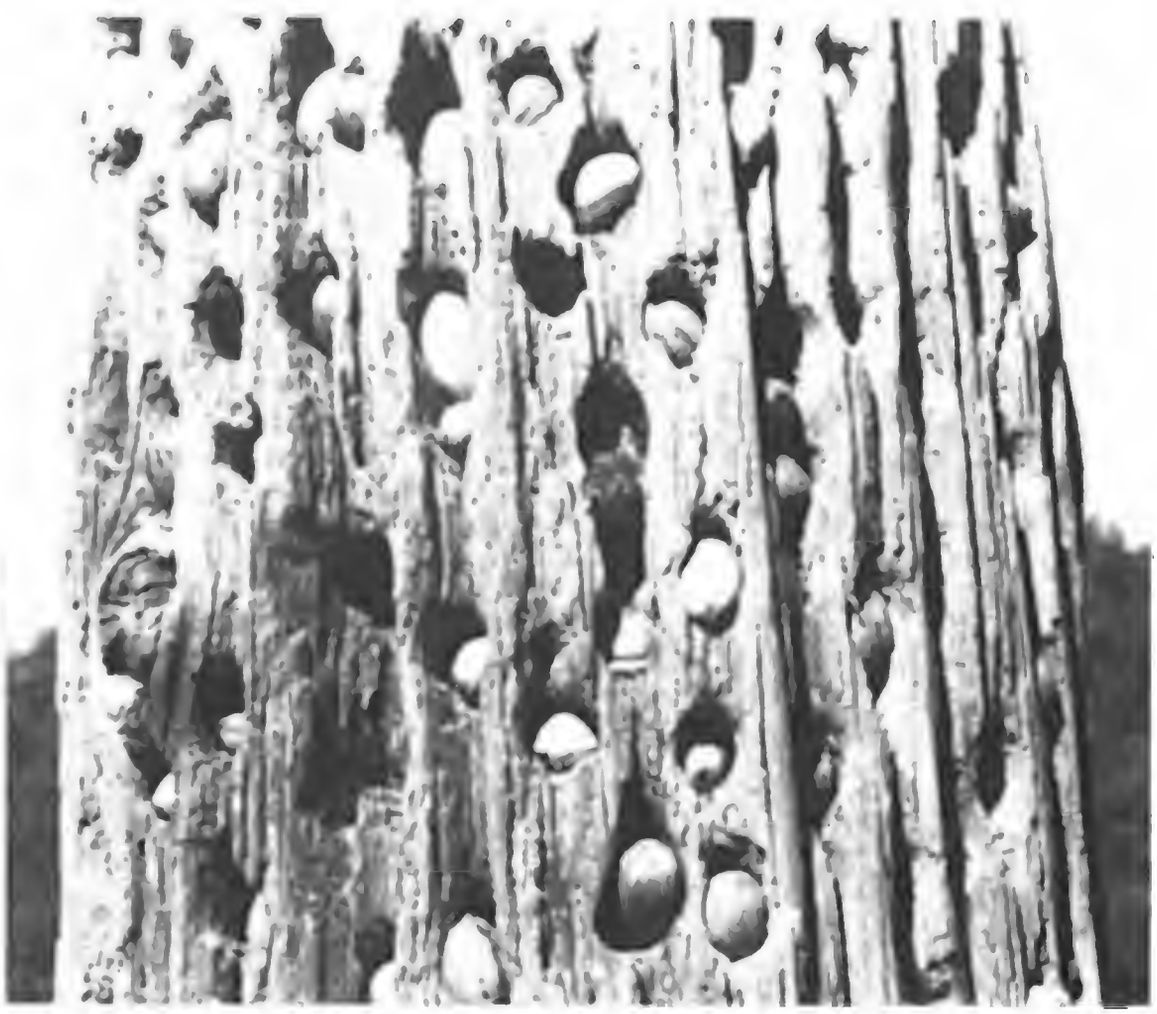

Figure 2. Pecans and a single olive (center) stored in holes drilled into a fence post.

Photo by Earl W. Lathrop

Bent (1940:216) reported the storage of pecans by Acorn Woodpeckers. However, there appear to be no previous reports of olives in the diet of Acorn Woodpeckers. The olive trees at Rancho Santa Rosa have since been cut down. Acorn Woodpeckers feed on a variety of plant and animal food items in addition to acorns (Ritter 1938, Bent 1940, MacRoberts and MacRoberts 1976, Koenig and Mumme 1987). Our observations suggest that they readily exploit novel items of food, such as pecans and olives, when available.

We thank W. D. Koenig and M. H. MacRoberts for reviewing the manuscript. We also thank T. Griggs and G. Bell of The Nature Conservancy for permission to study at the Santa Rosa Plateau Preserve and, along with N. Backstrand, for pertinent information. This study was funded in part by grant IHRMP-86/2 to Lathrop from the University of California at Berkeley.

Figure 3. Overhanging vertical crack in a granitic boulder (left) and closeup (right) showing acorns.

Photo by Floyd E. Hayes

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Acorn Woodpecker

Photo by Peter La Tourrette

FERRUGINOUS HAWK AND PINE SISKIN IN THE SIERRA DE LA LAGUNA, BAJA CALIFORNIA SUR; SUBSPECIES OF THE PINE SISKIN IN BAJA CALIFORNIA

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From 20 January to 1 February 1990 we crossed the Sierra de La Laguna, studying the winter birdlife of this isolated mountain range lying between La Paz and Cabo San Lucas, Baja California Sur. From 27 to 30 January we camped at La Laguna (23°30'N, 109°59'W, elevation 1650 m), an open valley surrounded by wooded mountains and a prominent locality in the history of the exploration of Baja California's biota.

Throughout our stay at La Laguna an immature light-phase Ferruginous Hawk (*Buteo regalis*) perched conspicuously atop the oak (*Quercus devia*) trees scattered about the valley floor and occasionally cruised about, foraging. We had many good views of its whitish head, underparts, and tail, and long tapered wings, over the four days. The light-phase immature is by far the most frequently seen plumage of the Ferruginous Hawk toward the southern end of the species' usual winter range in southern California.

The Ferruginous Hawk has been reported only once previously in Baja California Sur, by Brewster (1902), who collected two specimens on 27 and 28 November 1887 "on the summit of the Sierra de La Laguna." Eduardo Palacios, Lucia Alfaro, Gary Page, and Lynne Stenzel saw two adults along the southeast shore of Laguna Ojo de Liebre, Baja California Sur, on 9 January 1991 (E. Palacios pers. comm.). Otherwise, the species is known in Baja California as a scarce winter visitor occurring south only to El Rosario (Wilbur 1987). In mainland Mexico it has been recorded as far south as the states of Guanajuato and Hidalgo (Friedmann et al. 1950).

Early on the morning of 28 January Unitt was surprised to hear the ascending "zipper" call of the Pine Siskin (*Carduelis pinus*) and to see three of the birds flying high overhead along the southeast margin of the valley. Later in the morning Rodriguez and Castellanos independently encountered and identified the birds nearby along a creek leading into the valley through the pine–oak woodland. Finally, Unitt and Thomas A. Scott saw one of the birds well as it perched in the treetops along this creek with a flock of about 25 Lesser Goldfinches (*C. psaltria*). The siskin was about the same size as the goldfinches but its heavily brown-streaked plumage and the yellow stripe along the base of its remiges were plainly visible.

Rodriguez visited the Sierra de la Laguna again from 5 to 13 March 1992. He noted one Pine Siskin perched atop an oak in the Palo Extraño area (23°31'N, 109°56'W, elevation 1640 m) on 12 March.

There is only one previous record of the Pine Siskin for Baja California Sur, of a specimen collected by Lyman Belding (1883) at La Paz on 3 March 1882. Otherwise, the Pine Siskin is known in Baja California south only to the Sierra San Pedro Martir, some 950 kilometers to the northwest, where it is a common breeding resident.

Grinnell (1928) identified Belding's specimen from La Paz as *C. p. pinus*, the small, heavily streaked subspecies breeding over the Pine Siskin's range in Canada and the United States, rather than *C. p. macropterus*, the larger, less streaked subspecies breeding over the species' range in mainland Mexico.

NOTES

The fifth edition of the American Ornithologists' Union Check-list of North American Birds (1957) ascribed the Pine Siskins breeding in the Sierra Juárez and Sierra San Pedro Mártir, northern Baja California, to *macropterus*, but Unitt's study of specimens in the San Diego Natural History Museum (SDNHM) and the American Museum of Natural History (AMNH), New York, does not bear this out. *C. p. macropterus* differs from nominate *pinus* by its average longer wing, more extensive yellow in the tail, and more softly streaked underparts (allowing for plumage wear, which makes the streaking more distinct). There is some overlap between the subspecies in all three characters; only with all three considered simultaneously can *pinus* and *macropterus* be distinguished. The wing chords of 23 male *pinus* from Alaska (2 specimens), British Columbia (1), Idaho (1), Wyoming (1), Oregon (15), and northern California (2) average 73.4 mm, ranging from 69.9 to 76.4 mm; 5 male *macropterus* from Las Vigas, Veracruz, average 76.2 mm, ranging from 74.2 to 78.5 mm (a comparison of females was not made, there being only one female *macropterus* in AMNH). Six males (5 SDNHM, 1 AMNH) from the Sierra Juárez and Sierra San Pedro Martir average 73.8 mm, ranging from 73.0 to 76.1 mm, thus falling entirely within the range of nominate *pinus*. Yellow in the rectrices falls entirely within the range of variation in *pinus*. All of the *macropterus* from Las Vigas were collected in April, whereas all but one of the siskins from the sierras Juárez and San Pedro Mártir were collected in June and July, so the streaking on these birds is not directly comparable. Nevertheless, the streaking on the Baja California birds is typical of that of siskins from the U.S. in the same advanced stage of plumage wear. Therefore we suggest that Baja California be included in the range of *C. p. pinus* rather than of *C. p. macropterus*.

We thank Elizabeth Braker and Thomas A. Scott for organizing our expedition and the University of California, Riverside, and the Centro de Investigaciones Biológicas, La Paz, for supporting it. We thank Rich Stallcup and Tim Manolis for their helpful suggestions for this paper.

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OCCURRENCE OF BLACK SKIMMERS IN BAJA CALIFORNIA

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Although the Black Skimmer, *Rynchops niger,* is a familiar bird along the Pacific coast of mainland Mexico and southern California (AOU 1983), little is known of its occurrence on the peninsula of Baja California. Black Skimmers were not reported from Baja California until 1979 (Wilbur 1987) but now are observed regularly in winter along the northwestern coast (Wilbur 1987, Escofet et al. 1988). This colonial waterbird has recently established nesting colonies at San Diego Bay, in 1976 (McCaskie 1976, Unitt 1984), and at Bolsa Chica, Orange County, in 1985 (C. T. Collins, pers. comm.), so nesting is likely also in Baja California. In this area, Wilbur's supportive records, mostly for winter, are from only three locations (near Maneadero, Bahía de San Quintín, and Isla San Martín) and of between two and 44 individuals.

At present, we know of 57 additional records of *R. niger* for Baja California, including our observations and those of eight other colleagues, made from 1982 to 1992, at nine locations around the peninsula (Figure 1). These are summarized by location in Appendix 1. At Bahía de San Quintín we, with other observers, counted the numbers of skimmers during coordinated counts of the entire bay by Point Reyes Bird Observatory (PRBO). On most occasions, the Black Skimmers were resting with dozens of gulls, terns, and feeding shorebirds in the main coastal lagoons of Baja California. The observations encompass a total of 4517 individual skimmers.

Ensenada: In this location the birds roost at the mouth of Arroyo Ensenada and 800 m south of it, on the municipal beach. All of the 15 records are for autumn and winter, but the number of skimmers in fall was higher than in winter (Appendix 1), suggesting that this segment of beach is used mainly by birds dispersing after the April–August breeding season. We recorded the numbers of immature skimmers on five occasions: 25 October 1990, 26; 26 October 1990, 18; 28 December 1990, 5; 24 January 1991, 41; 2 February 1991, 5. We also observed banded birds, including adults and immatures, with aluminum and/or color bands: 26 October 1990, 25; 5 November 1990, 13; 28 December 1990, 27; 24 January 1991, 12; 2 February 1991, 4; 11 February 1991, 1; 22 February 1991, 4. These birds were banded at colonies in southern California. Some of them, with color bands, were banded as chicks at the Bolsa Chica colony between 1988 and 1990 (C. T. Collins pers. comm.).

Estero de Punta Banda: This is probably the location mentioned by Wilbur (1987) as "near Maneadero" because it is the typical habitat for skimmers nearest Maneadero. We have made (Palacios et al. 1991, S. González unpubl. data) regular weekly visits to this location since 1988. Fourteen of our 17 records (82%) for this site are for spring or summer; only three are for winter (Appendix 1). Only adults were observed at this location. We also observed banded birds. On the night of 17 April 1990, during a workshop on shorebirds (MBO–CICESE), we netted a skimmer that had been banded as a fledgling at Bolsa Chica on 8 August 1989. On 18 February 1991 we counted 10 banded birds among a flock of 44 individuals. These banded birds could be the same as those seen at Ensenada, dispersing to feed at the estuary and along the shoreline between the two locations.

We noted skimmers feeding at Estero de Punta Banda and Ensenada on 14 occasions, mainly near low tide. Nine observations were of one individual, two were of two individuals, and three were of three individuals. Erwin (1977) also found that skimmers frequently feed singly on their breeding grounds in Virginia.

Bahía de San Quintín: We have 10 records for this location (Appendix 1). The numbers substantially exceed those reported by Wilbur (1987). We saw four banded birds in a group of 16 individuals on 19 April 1991. These birds also were banded in southern California (C. T. Collins pers. comm.).

La Pinta Pond: We observed one immature on 10 May 1991.

Figure 1. Distribution of Black Skimmers in Baja California.

Laguna Manuela: We saw 14 adults and three immatures on 14 May 1991, and 12 adults on 20 May 1991, at the northern end of the lagoon.

Laguna Guerrero Negro: F. Heredia (pers. comm.) saw 17 individuals at the mouth of the lagoon on 1 February 1989.

Laguna Ojo de Liebre: J. A. Sánchez (pers. comm.) has seen skimmers here four times (Appendix 1), the southernmost known locality of occurrence on the Pacific coast of Baja California.

There are still no records of Black Skimmers for Laguna San Ignacio (Danemann and Guzmán 1992, D. Ward pers. comm.) or Bahía Magdalena (B. Massey pers. comm.), possibly because of lack of observers.

Ensenada de La Paz: There are only two records, of three on 18 November 1985 (E. Amador pers. comm.) and 12 on 8 January 1988 (R. Webster unpubl. field notes). Amador's record is the first for Baja California Sur. These individuals probably were vagrants from the coast of Sonora or Sinaloa, Mexico, as more skimmers have been sighted offshore in the Sea of Cortez (E. Amador pers. comm.).

After colonizing southern California through Salton Sea (McCaskie et al. 1974), the Black Skimmer is increasing its numbers and extending its distribution in the peninsula of Baja California. The present numbers are higher than previously reported by Wilbur (1987). The Black Skimmer may be considered a locally common bird on the northwestern coast of Baja California not only in winter but year round, and it may be regular in winter in the Vizcaino region (central Baja California). The birds found along the northwestern coast of Baja California, and probably those in the Vizcaino region, come from southern California, as demonstrated by the banded birds observed. The Black Skimmer often breeds in mixed colonies with terns. The occurrence of adult skimmers at Estero de Punta Banda during spring and summer, and the presence of a suitable nesting habitat for the Least Tern on its barrier beach (Palacios et al. 1991), make this coastal lagoon a potential future nesting site for skimmers.

To all our colleagues listed earlier our deepest gratitude for allowing to use their unpublished field notes. We thank Gary Page, Lynne Stenzel, and the volunteers of the PRBO for providing data generated by the Pacific Flyway Project in Baja California. Charles T. Collins, Anamaría Escofet, Michael Evans, Eric Mellink, and Lynne Stenzel reviewed this note. PRBO and CICESE provided logistical support to this work.

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Appendix 1. Additional records of Black Skimmers in Baja California, 1982–1992. All observations are ours unless another observer is cited.

Ensenada: 14 Feb 1982, 30 (Richard Webster); 17 Mar 1984, 45 (R. Webster); 25 Feb 1989, 90 (Eric Mellink); 7 Apr 1990, 77 (Anamaría Escofet); 25 Oct 1990, 139; 26 Oct 1990, 238; 5 Nov 1990, 170; 8 Nov 1990, 164; 7 Dec 1990, 205; 8 Dec 1990, 220; 19 Dec 1990, 165; 28 Dec 1990, 219; 24 Jan 1991, 135; 2 Feb 1991, 122; 11 Feb 1991, 41; 22 Feb 1991, 12; 3 Mar 1991, 9; 2 Feb 1992, 43.

Estero de Punta Banda: 26 Sep 1987, 1; 22 Jan 1989, 2; 19 Aug 1989, 6; 17 Apr 1990, 1; 21 Apr 1990, 8; 5 May 1990, 50 (Salvador González); 17 Jun 1990, 35 (S. González); 7 Jul 1990, 38 (S. González); 12 Aug 1990, 40 (S. González); 26 Aug 1990, 8 (S. González); 16 Feb 1991, 3; 18 Feb 1991, 44; 21 Apr 1991, 20 (PRBO); 2 Jun 1991, 60; 9 Jun 1991, 26; 14 Jun 1991, 49; 11 Jul 1991, 60.

Bahía de San Quintín: 26 Dec 1983, 70 (R. Webster); 18 Mar 1984, 110 (R. Webster); 29 Jun 1984, 12 (R. Webster); 3 Jul 1987, 40 (R. Webster); 22–23 Apr 1989, 144 (PRBO); 16 Sep 1990, 100 (PRBO); 5–7 Jan 1991, 463 (PRBO); 19–20 Apr 1991, 169; 19–20 Sep 1991, 155 (PRBO); 25–26 Jan 1992, 184 (PRBO); 3-4 Feb 1 992, 223 (PRBO).

Laguna Ojo de Liebre (all observations by José Angel Sánchez, Centro de Estudios Tecnológicos del Mar, Guerrero Negro, Baja California Sur): Autumn 1983, about 10; winter 1983, about 15; Dec 1990, about 30; 13 Apr 1991, 120.

Along Mexico Highway 5 near Campo Río Hardy (by R. Webster unpubl. field notes): 21 Aug 1984, 25 (3 juv.); 28 Mar 1985, 110.

FIRST RECORD OF THE BLACK-SHOULDERED KITE FOR CANADA

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On 26 April 1990, we made two independent sightings of an adult Black-shouldered or White-tailed Kite (*Elanus caeruleus*) at the Alaksen National Wildlife Area (NWA) and the George C. Reifel Migratory Bird Sanctuary (MBS). Both locations are on Westham Island, which is situated about 15 km south of Vancouver, in the mouth of the south arm of the Fraser River in southwestern British Columbia (49°10'N, 123°05'W). These adjoining federally protected areas are a vital part of the Fraser River delta, one of the most important bird habitats in North America (Butler and Campbell 1987). The Black-shouldered Kite was not recorded for Canada by Godfrey (1986) or Campbell et al. (1990), and these sightings represent the first records of the species for Canada.

The kite at Alaksen NWA was sighted about 1800 hrs. by Smith. As the bird hovered over a field of fall rye its white underparts were visible as it poised itself with head down and tail held forward. This posture is exactly as illustrated in the National Geographic Society Field Guide to the Birds of North America (Scott 1983). The kite hovered for several seconds in strong sunlight, less than 10 meters from the ground, not 30 meters from the observer. The wings were long and pointed, and the underside of the tail was completely white. As the bird made a gliding turn it showed black patches on the inner portion of the ventral leading edges of the wings. The yellow cere at the base of the upper mandible was noticeable. Smith watched the bird for several minutes as it moved across the field, hovering in different locations. All observations were made with the naked eye from an unobstructed vantage point at the roadside.

Ireland made the second sighting about 30 minutes later at the Reifel MBS. Its proximity to the first sighting suggests that this was the same individual. The bird was first seen as it glided over a slough, then as close as 50 meters as it circled overhead. This observation was made with 8 × 45 binoculars. The bird was a medium-sized hawk slightly slimmer than a male Northern Harrier (*Circus cyaneus*). It was very white below and light grey above with large black patches on the upper wing; a dark blackish area was noticeable around the eye. All observed characteristics indicate this bird was an adult.

Additional sightings of Black-shouldered Kites in British Columbia were recorded 5 and 7 June 1990 (Siddle 1990, Weber 1991). The bird seen on 5 June was observed for about 30 minutes as it perched on a fence post near the Fraser River in Delta. This sighting was about 17 km east of Westham Island. The latter sighting was at Pitt Meadows, 30 km east of Vancouver. This bird showed signs of immaturity so was evidently different from the adult seen 26 April at Alaksen. On 24 April Mr. and Mrs. B. Williams, from Ontario, reported a bird fitting the description of a Black-shouldered Kite on Westham Island while on their way to visit the Reifel MBS (R. W. Campbell pers. comm.).

Black-shouldered Kite populations have fluctuated strongly and have increased recently. The species' range has been expanding with its population (Eisenmann 1971, Henny and Annear 1978, Larson 1980, Roberson 1980). Common in California, this kite prefers grasslands and farmlands, where it preys primarily on rodents and insects and nests in the crowns of densely foliaged trees. Anderson and Batchelder (1990) reviewed historic records of the Black-shouldered Kite in the

Pacific Northwest and reported the first confirmed nesting of the species in Washington state in 1988. The occurrence of this species in British Columbia has been expected in light of its range expansion over the past several years.

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PROXIMAL NESTING BY THE BLACK-BILLED MAGPIE AND TWO RAPTORS

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An accumulating body of literature demonstrates that it is rather common for nonraptors to nest very near raptors, and unusual, but not rare, for two species of raptors to nest within what may be considered the same territory. It is rare for natural antagonists and least common for pairs of the same species to next in close proximity.

Remarkable examples of raptors nesting near nonraptors include Great Horned Owls (*Bubo virginianus*) nesting in Great Blue Heron (*Ardea herodias*) colonies (Knight and Erickson 1978, Johnson 1976) and Peregrine Falcons (*Falco peregrinus*) in European heron colonies (Makatsch 1950, cited by Welty 1962:260–262). Some raptor/nonraptor nesting associations may be mutually beneficial. Konrad and Gilmer (1982) reported 30 Western Kingbird (*Tyrannus verticalis*) nests and 31 nests of other passerines in or within 10 meters of Ferruginous Hawk (*Buteo regalis*) or Swainson's Hawk (*B. swainsoni*) nests.

Raptors of different species occasionally nest near each other. Great Horned Owls nested about 21 (Smith 1970) and 33 (Houston 1975) meters from Red-tailed Hawks (*Buteo jamaicensis*), and about 30 meters from Harris' Hawks (*Parabuteo unicinctus*) (Freemyer and Freemyer 1970). White-tailed Sea Eagles (*Haliaeetus albicilla*) and Peregrine Falcons nested in the same tree over a three-year period (Deppe 1972, cited by Kale 1974). Perhaps the ultimate example is Bent's

Figure 1. Great Horned Owls nested in the right nest in 1967 and 1968. Black-billed Magpies nested each year from 1967 to 1969, and Red-tailed Hawks nested in 1969 on the canopy of the occupied magpie nest.

Photo by Catherine H. Ellis

(1937:324) account of Bald Eagles (*Haliaeetus leucocephalus*) and Great Horned Owls sharing the same nest.

I observed the following in a lone cottonwood tree (probably *Populus angustifolia*) in the sagebrush- (*Artemisia tridentata*) clad hills near Big Gulch, Moffat County, Colorado. On 23 April 1967, a Black-billed Magpie (*Pica pica*) was incubating in its canopy-covered nest about 3.5 meters horizontally from an incubating Great Horned Owl (Figure 1). The owl's nonincubating mate was perched in the tree even nearer, although slightly below, the magpie nest. On 4 April 1968, two owl eggs were present in the same nest active in 1967. The magpie was again incubating (5 eggs) only 3.5 meters from the owls.

On 26 April 1969, in the same tree, I saw an adult Red-tailed Hawk fly to its nest and deposit a twig. Its deeply cupped and bark-lined but eggless nest was built on the canopy of the magpie nest, in which a magpie was incubating eight eggs. Another adult Red-tailed Hawk lay dead with a deep gash in its head at the base of the tree. No owls were observed on that day, but when I returned on 27 April, an owl was perched in the tree, and a mapie was incubating. When I flushed the owl, two adult Red-tailed Hawks appeared and drove the owl into the sagebrush.

These episodes of proximal nesting are extreme examples not of symbiosis or cooperative nesting but of competition for limited nesting habitat. The observations are all the more remarkable given the natural animosity between the species involved.

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STATUS OF CLARK'S NUTCRACKERS ON CERRO EL POTOSI, NUEVO LEON, MEXICO

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In the sixth edition of the American Ornithologists' Union's Check-list of North American Birds (1983), Clark's Nutcracker (*Nucifraga columbiana*) is described as occurring only as a nonbreeding wanderer in mainland Mexico. The only locality in the Sierra Madre Oriental where the species has been reported is Cerro El Potosí, which lies 25 km northwest of Galeana, in central western Nuevo León. Nutcrackers were first reported at this locality by Leopold (1947), who collected one of three birds seen on 16 July 1945. Later, Allan R. Phillips (pers. comm.) saw two individuals there on 18 May and four on 19 May 1975, respectively. Andres M. Sada (pers. comm.) observed three individuals there on both 5 February 1983 and 12 October 1986. I saw four on 15 November and nine on 16 November 1985, when one adult, probably a female, was collected (Universidad Autónoma de Nuevo León catalog number 1678). Most recently, I saw twelve nutcrackers on 20 June and five on 10 July 1991, at elevations above 3500 meters above sea level; one of these birds was feeding on cones of the pine *Pinus ayacahuite*.

Although nutcrackers at times do wander great distances from their usual range, I think the repeated occurrences of the species on Cerro El Potosí indicate that a stable isolated relict population is resident there, as suggested by Phillips (1986). This locality is the southernmost for Clark's Nutcracker if the sight record by Evenden et al. (1965) is erroneous, as Phillips (1986) believed. The tail of the specimen in the Universidad Autónoma de Nuevo León measures 123.3 mm, substantially longer than the range of 111.0–118.5 given by Ridgway (1904). Unfortunately, the small size of the population precludes immediate collection of a larger sample.

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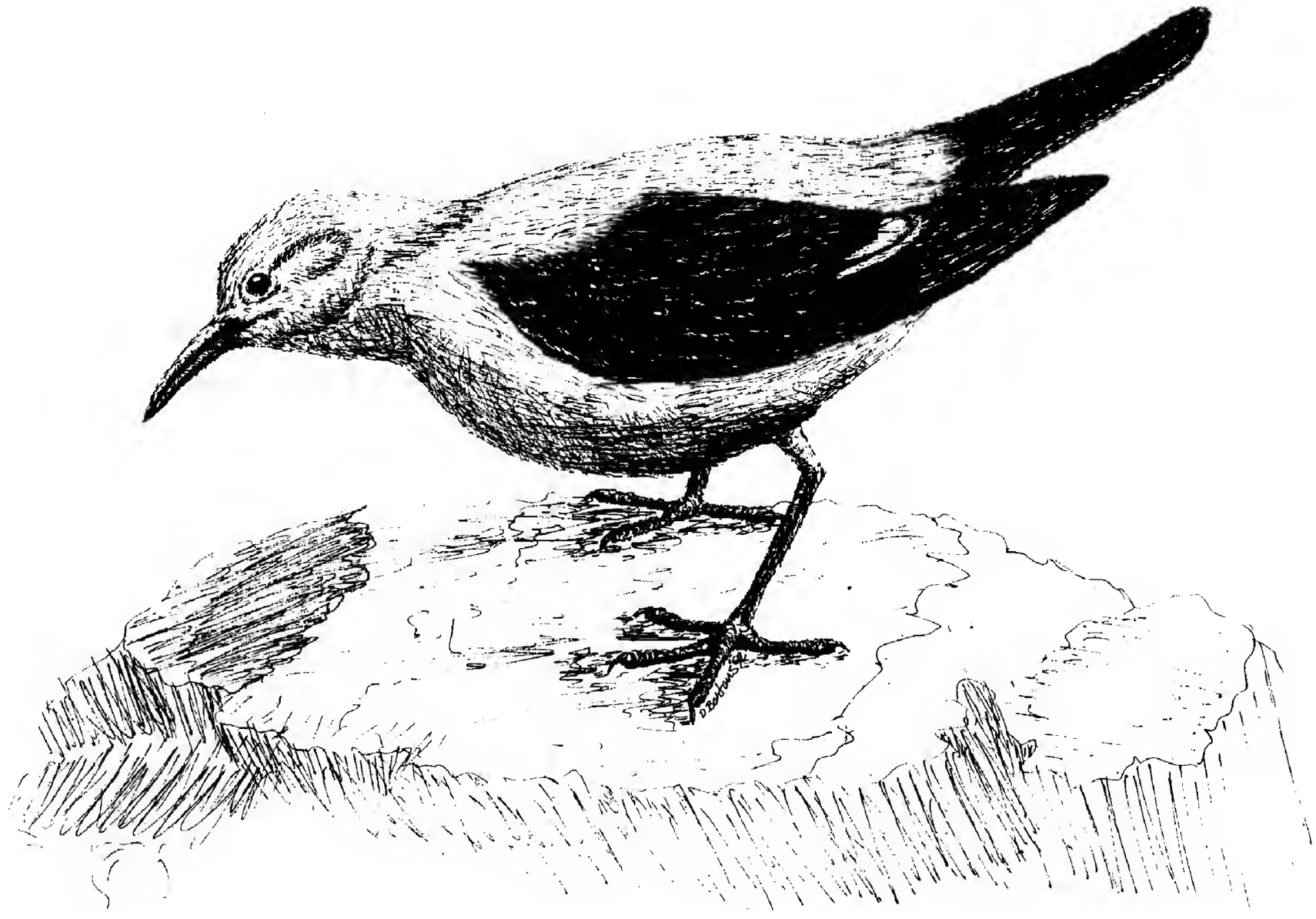

Clark's Nutcracker

Sketch by Deborah Bartens

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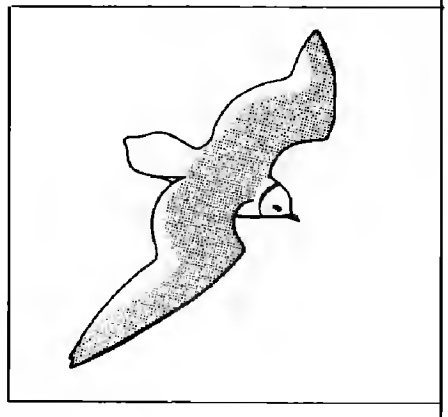

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